

MONITORING REPORT

Fourth Quarter 2013
Quarterly Monitoring Report
and Annual Report
Baldwin Hardware Corporation
Reading, Pennsylvania

8 January 2014

WO# 0193807

Environmental Resources Management, Inc.
200 Harry S Truman Parkway, Suite 400
Annapolis, Maryland 21401



1.0	INTRODUCTION	1
1.1	BACKGROUND	1
2.0	MONITORING RESULTS	3
2.1	<i>Ground Water Monitoring Data</i>	3
2.2	<i>Treatment System Monitoring</i>	4
2.3	<i>QC Report</i>	4
3.0	PROGRESS REPORT	4
4.0	ANNUAL MONITORING PROGRAM SUMMARY	5
4.1	<i>Ground Water Flow and Quality</i>	5
4.2	<i>Treatment System Performance</i>	6
4.3	<i>QA/QC Statement</i>	6
4.4	<i>Conclusions</i>	6

<i>LIST OF FIGURES</i>	<i>FOLLOWS PAGE</i>	
FIGURE 1	WATER LEVEL ELEVATIONS ON 19 OCTOBER 2013	6
FIGURE 2	WATER LEVEL ELEVATIONS ON 22 JANUARY 2013	6
FIGURE 3	WATER LEVEL ELEVATIONS ON 16 APRIL 2013	6
FIGURE 4	WATER LEVEL ELEVATIONS ON 20 AUGUST 2013	6

<i>LIST OF TABLES</i>	<i>FOLLOWS PAGE</i>	
TABLE 1	ORGANIC GROUND WATER QUALITY DATA FOR 4TH QUARTER 2013 SAMPLING	6
TABLE 2	INORGANIC GROUND WATER QUALITY DATA FOR 4TH QUARTER 2013 SAMPLING	6
TABLE 3	WATER LEVEL DATA FOR 1996 THUR 2013 QUARTERLY SAMPLING	6
TABLE 4	MONTHLY TREATMENT SYSTEM INFLUENT AND EFFLUENT TCE CONCENTRATIONS FOR 1995 THRU 2013 QUARTERLY SAMPLING	6

TABLE 5	ORGANIC GROUND WATER QUALITY DATA FOR 1ST QUARTER 2013 SAMPLING	6
TABLE 6	ORGANIC GROUND WATER QUALITY DATA FOR 2ND QUARTER 2013 SAMPLING	6
TABLE 7	ORGANIC GROUND WATER QUALITY DATA FOR 3RD QUARTER 2013 SAMPLING	6
TABLE 8	INORGANIC GROUND WATER QUALITY DATA FOR 1ST QUARTER 2013 SAMPLING	6
TABLE 9	INORGANIC GROUND WATER QUALITY DATA FOR 2ND QUARTER 2013 SAMPLING	6
TABLE 10	INORGANIC GROUND WATER QUALITY DATA FOR 3RD QUARTER 2013 SAMPLING	6

APPENDICES

APPENDIX A	LABORATORY ANALYTICAL REPORT
APPENDIX B	PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION WATER QUALITY REPORTING FORMS
APPENDIX C	M. J. REIDER ASSOCIATES 2013 PERFORMANCE EVALUATION (PE) RESULTS

This Fourth Quarter 2013 Monitoring Report/ Annual Report has been prepared for Baldwin Hardware Corporation (Baldwin), Reading, Pennsylvania by Environmental Resources Management, Inc. (ERM). Quarterly monitoring and reporting is conducted at the Baldwin plant in accordance with the Administrative Order on Consent (Consent Order) executed between Baldwin and the U.S. Environmental Protection Agency (EPA) Region III. This report includes the following: results of the well sampling and analyses; water level elevations for the wells and piezometers; the treatment system influent and effluent analyses for trichloroethene (TCE) concentrations; a quality control (QC) report; and a quarterly progress report.

In addition, this report also includes a summary of the 2013 data for ground water flow conditions and quality, treatment system performance, a QA/QC statement, and the results of M.J. Reider Associates' 2013 Performance Evaluation (PE).

1.1**BACKGROUND**

The Baldwin site is located approximately one-half mile southwest of the Schuylkill River in Reading, Pennsylvania. Custom brass hardware is manufactured at the plant. Pursuant to the Consent Order, Baldwin installed a ground water recovery, monitoring, and treatment system for remediation of volatile organic compounds (VOCs) in ground water. It was determined that TCE was released to the environment from former drying beds. The quarterly ground water monitoring system consists of the following elements:

- Three pumping wells (PW-5, PW-4, and PS-1);
- Two back-up pumping wells (PS-2 and PS-3);
- Four monitoring wells (OW-1, OW-2, OW-3S, OW-3D); and
- Ten piezometers (P-1, P-2, P-3S, P-3I, P-3D, P-4S, P-4I, P-4D, P-5S, and P-5D).

The locations of the wells are shown on Figure 1. Figure 1 also shows nearby wells (MW-3, 4, 6, 7) owned by Interstate Container Corporation

which have been used in the past to provide supplementary water level data.

The recovery wells pump constantly at a rate of about 300 gallons per minute. The recovery system was activated in April 1988 and has functioned constantly since that time. The recovered ground water is treated by an air stripping tower and then used for plant processes. Any excess treated water is discharged with other plant NPDES wastewater streams in accordance with the Baldwin Pennsylvania Department of Environmental Protection (PADEP) -approved discharge permit.

In addition to ground water monitoring, the treatment system is also monitored on a monthly basis for TCE. The treatment system monitoring is performed at the following points:

- Tower influent to the treatment system;
- Tower effluent from the treatment system;
- Well PW-4 effluent, prior to treatment;
- Well PW-5 effluent, prior to treatment;
- Well PS-1 effluent, prior to treatment; and
- Well PS-2 effluent, prior to treatment.

Details of the recovery, monitoring, and treatment system are provided in the *Purge and Treatment System Certification Report*, 2 September 1988, prepared by Keck Consulting Services, Inc.

Water level measuring, well sampling, and analysis were performed by M. J. Reider Associates, Reading, Pennsylvania 19 October 2013. The pump in PS-1 is damaged and not functioning; therefore no samples were collected from this location. Baldwin Hardware is currently assessing the feasibility of repairing the pump. In the interim, back-up pumping well PS-2, which is relatively close to PS-1 has been operated consistently for several years and continues to operate properly. The total flow rate to the treatment system has remained constant at 300 gpm.

Sample collection, handling, analysis, and QC sampling were performed in accordance with the protocols outlined in the Consent Order documents. In brief, the ground water samples collected from the two pumping wells, two back-up pumping wells and four monitoring wells were analyzed for VOCs by EPA Method 8260, selected total and dissolved metals, and general water quality parameters. Additionally, the

treatment system samples were analyzed monthly for select VOCs (including TCE) by Baldwin's internal laboratory using EPA Method 624.

2.0

MONITORING RESULTS

2.1

Ground Water Monitoring Data

The results of the Fourth Quarter 2013 well sampling and analysis for VOCs are summarized in Table 1. The inorganic analyses are summarized in Table 2. The complete laboratory report is provided in Appendix A. The results are also reported on the Pennsylvania Department of Environmental Protection (PADEP) *Form 19 Quarterly and Annual Water Quality Analyses* provided in Appendix B.

The VOC results for the Fourth Quarter sampling are generally consistent with past quarterly sampling results. TCE has continued to decrease in well PS-2 from 643 micrograms per liter ($\mu\text{g/l}$) in Fourth Quarter 2002 to 1.2 $\mu\text{g/l}$ detected in Fourth Quarter 2013. Similar trends have been observed for the following wells:

- PS-1 - The highest reported TCE concentration was 731 $\mu\text{g/l}$ measured in 1993. Although this well was not sampled during the fourth quarter of 2013, TCE levels at this well have been below 20 $\mu\text{g/l}$ since 2005;
- PW-4 - The highest reported TCE concentration was 1395 $\mu\text{g/l}$ measured in 2003. TCE concentrations have been below 30 $\mu\text{g/l}$ since 2009; and
- OW-2 - The highest reported TCE concentration was 1200 $\mu\text{g/l}$ measured in 2002. The TCE concentrations have been below 10 $\mu\text{g/l}$ since 2008.

Federal Secondary Drinking Water Standards were exceeded in three of the monitoring wells for total iron (OW-1, OW-3S and PS-3) and total manganese (PS-3). None of the ground water samples had concentrations of total metals in excess of the Federal Primary Standards. Total analysis are likely biased high due to the presence of suspended sediments in the sample, and are not indicative of metals that can migrate through the ground water system.

One ground water sample exceeded the Federal Secondary Drinking Water Standard for dissolved manganese and dissolved iron (PS-3). None of the ground water samples had concentrations of dissolved metals in

excess of the Federal Primary Standards (Table 2). Dissolved concentrations are more indicative than total concentrations of metals that can migrate through the ground water system.

The water level data are provided in Table 3; ground water potentiometric contours for the Fourth Quarter event are shown on Figure 1. Water levels were measured in most of the wells prior to evacuation and sampling. Water levels were not measured at PS-1, PS-2, PS-3, P-3S, P-3I, P-3D, P-4D and MW-4. Fourth Quarter 2013 water levels are generally consistent with prior water levels, indicating that the direction of ground water flow under pumping conditions remains consistent.

2.2

Treatment System Monitoring

The results of the monthly treatment system monitoring for TCE are provided in Table 4. As shown, the reported tower influent TCE concentrations for the Fourth Quarter 2013 ranged between 53 and 98 µg/l. Effluent concentrations were non-detect (detection limit of 5 µg/l) indicating that treatment system is functioning properly. The target effluent concentration for TCE is less than 100 µg/l.

2.3

QC Report

The results of the QC sampling for VOCs, metals and general water quality parameters are provided in Appendix A. None of the VOCs detected in the well samples were detected in the trip blank sample. No VOCs were detected in the method blank. With a few exceptions, the matrix spike sample recoveries, the standard sample results, and the laboratory field duplicate results were all generally within acceptable levels. Dissolved iron should be considered a quantitative estimate and qualified "J" for OW-3D only. All other dissolved iron results do not require qualification. Total lead for OW-2 and its duplicate should be considered quantitative estimates and qualified "<J" for OW-2 and "J" in the duplicate sample. The data is accurate, precise, and complete in accordance with the level of QC required by the Consent Order.

3.0

PROGRESS REPORT

Compliance activities performed for the Fourth Quarter 2013 period include well and treatment system sampling and analysis, the collection of water level measurements in the wells and piezometers, as described above, and reporting. With the timely submission of this report, all compliance activities and deadlines will have been met. With the exception of pumping at well PS-1, the recovery and treatment system at

the Baldwin site continues to operate as designed and as approved by U.S. EPA.

4.0

ANNUAL MONITORING PROGRAM SUMMARY

4.1

Ground Water Flow and Quality

Depths to water and water level elevations for the four quarterly monitoring events are summarized in Table 3; ground water potentiometric contours for the 1st, 2nd, and 3rd quarter events are provided on Figures 2, 3, and 4, respectively. The direction of ground water flow under pumping conditions is to the southeast and has remained consistent, as would be anticipated under continuous pumping conditions.

The results of the VOC ground water analytical sampling for the 1st, 2nd, and 3rd quarters of 2013 are provided in Tables 5, 6, and 7. As shown, in most cases the VOCs identified and the reported concentrations have remained consistent over the four quarters. The highest concentrations of TCE, the principal contaminant, occurred in wells PW-4 and PW-5 (at 12.8 and 87.0 µg/l respectively); both wells are located in the vicinity of the former source area. The majority of the other chlorinated VOCs that have been detected are breakdown products of TCE or 1,1,1-trichloroethane (TCA). The benzene detected in well OW-3D is an aromatic hydrocarbon that is unrelated chemically to the chlorinated organics discussed above. The detection of benzene in upgradient wells further indicates there may be an upgradient, off-site source for VOCs in ground water.

The metals and general water quality parameters for the 1st, 2nd, and 3rd quarters of 2013 are provided in Tables 8, 9, and 10, respectively. The results have been generally consistent over the four quarters of 2013 data. Total iron and manganese have been detected in several wells at concentrations that exceed Federal Secondary Drinking Water Standards. Total chromium, total nickel and total lead were detected in one well each at concentrations that exceed Federal Primary Drinking Water Standards. With the exception of PS-3 and PW-5 none of the ground water samples had concentrations of dissolved metals in excess of the Federal Primary and Secondary Drinking Water Standards. Dissolved iron and manganese was detected in one well (PS-3) at concentrations above Federal Secondary Drinking Water Standards and. Dissolved lead was detected in one well (PW-5) at a concentration above Federal Primary Drinking Water Standards. Dissolved concentrations are more indicative than total concentrations of metals that can migrate through the ground water system.

4.2

Treatment System Performance

The monthly influent/effluent TCE concentrations for 2013 are provided in Table 4. As shown, the combined and individual well influent TCE concentrations to the treatment system have remained consistent.

Although monthly samples could not be collected from well PS-1 during 2013, prior monthly sample data have shown that concentrations at this well have been either low or non-detect for the last few years.

The effluent concentrations have also remained consistent and indicate that the treatment system is functioning properly. Effluent TCE concentrations are well below the target effluent concentration of 100 µg/l.

4.3

QA/QC Statement

In general, quality control acceptance criteria have consistently been met for all four quarters of 2013 monitoring data. The data have been considered valid with only a few minor qualifiers required. These qualifiers have been added to the data presented in the tables contained within this report. Accordingly, no changes to the analytical program are necessary. As required by the Consent Order, the results of M. J. Reider's 2013 Performance Evaluation (PE) is submitted in Appendix C of this report.

4.4

Conclusions

The data indicate that the pumping, monitoring, and treatment system have continued to operate as planned and as provided for in the Consent Order with the exception of pumping at well PS-1. The VOC concentrations in ground water continue to decrease since the inception of the pumping system. The system is removing contaminated ground water from the site and the treatment system is effectively removing VOCs from the contaminated ground water.

Figures

FIGURE 1
GROUND WATER ELEVATION CONTOUR MAP
29-30 OCTOBER 2013
BALDWIN HARDWARE CORPORATION
READING, PENNSYLVANIA

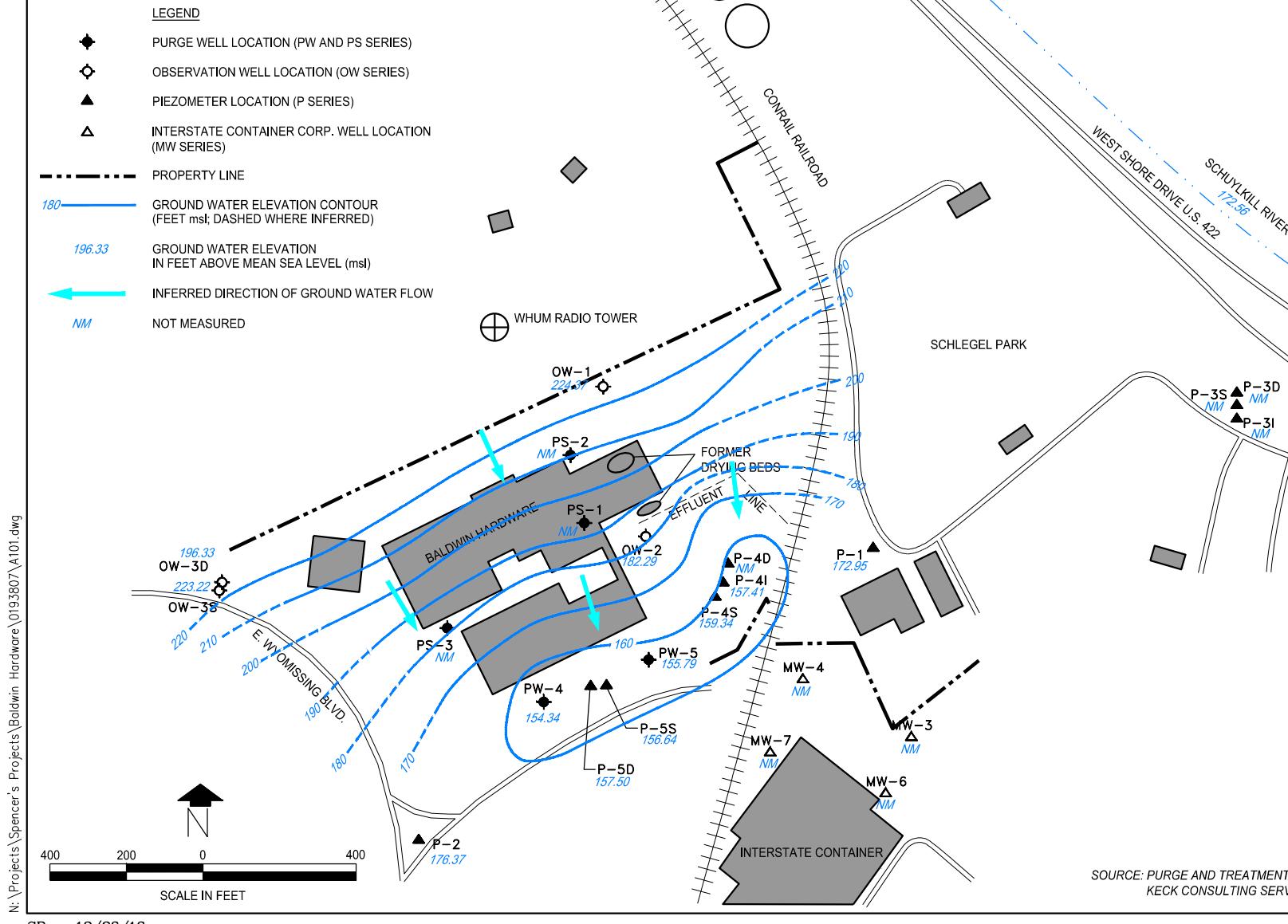
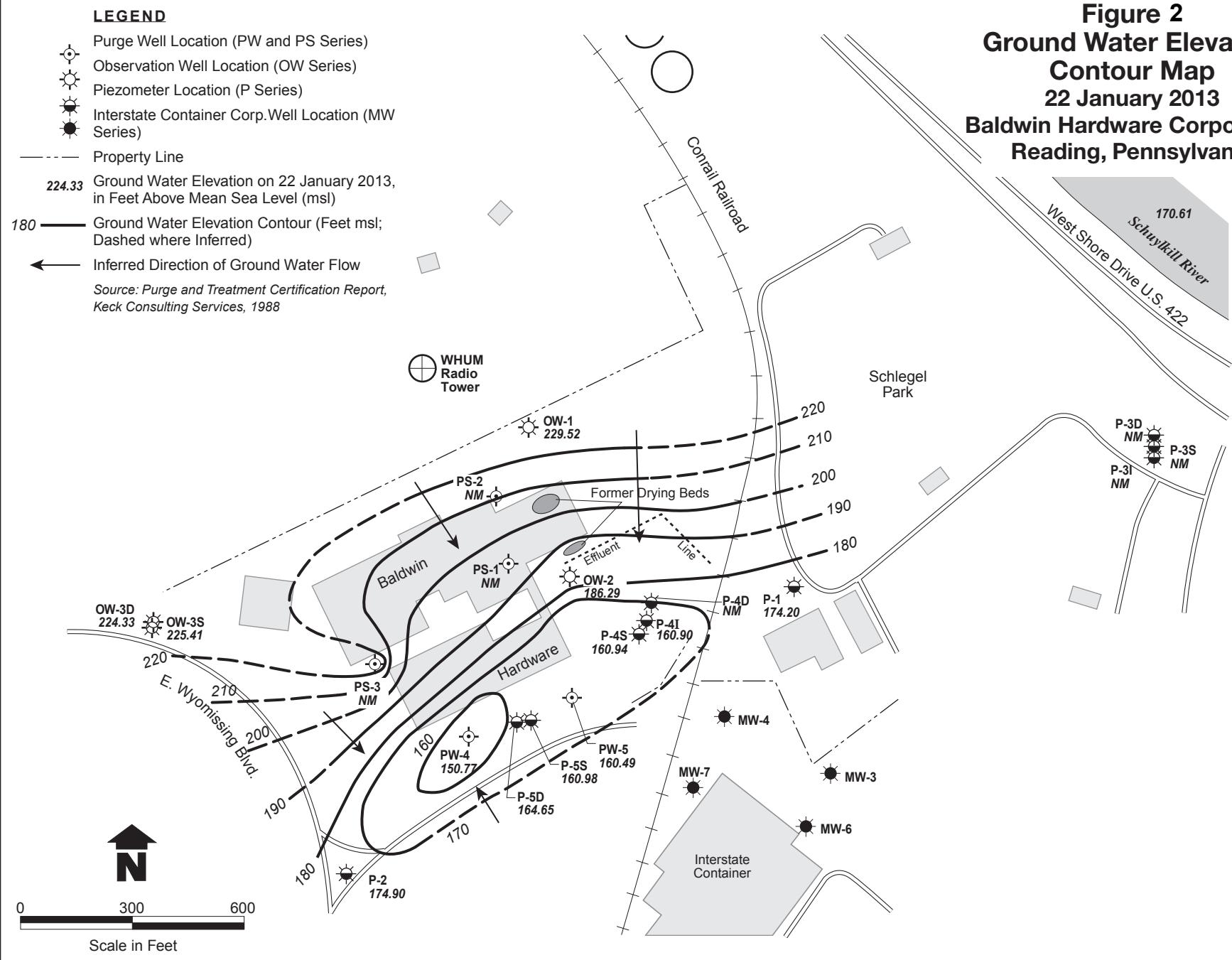


Figure 2
Ground Water Elevation
Contour Map
22 January 2013
Baldwin Hardware Corporation
Reading, Pennsylvania



LEGEND

- ◆ Purge Well Location (PW and PS Series)
- ◆ Observation Well Location (OW Series)
- ◆ Piezometer Location (P Series)
- ◆ Interstate Container Corp. Well Location (MW Series)

Property Line

226.89 Ground Water Elevation on in Feet Above Mean Sea Level (msl)

180 Ground Water Elevation Contour (Feet msl; Dashed where Inferred)

← Inferred Direction of Ground Water Flow

Source: Purge and Treatment Certification Report, Keck Consulting Services, 1988

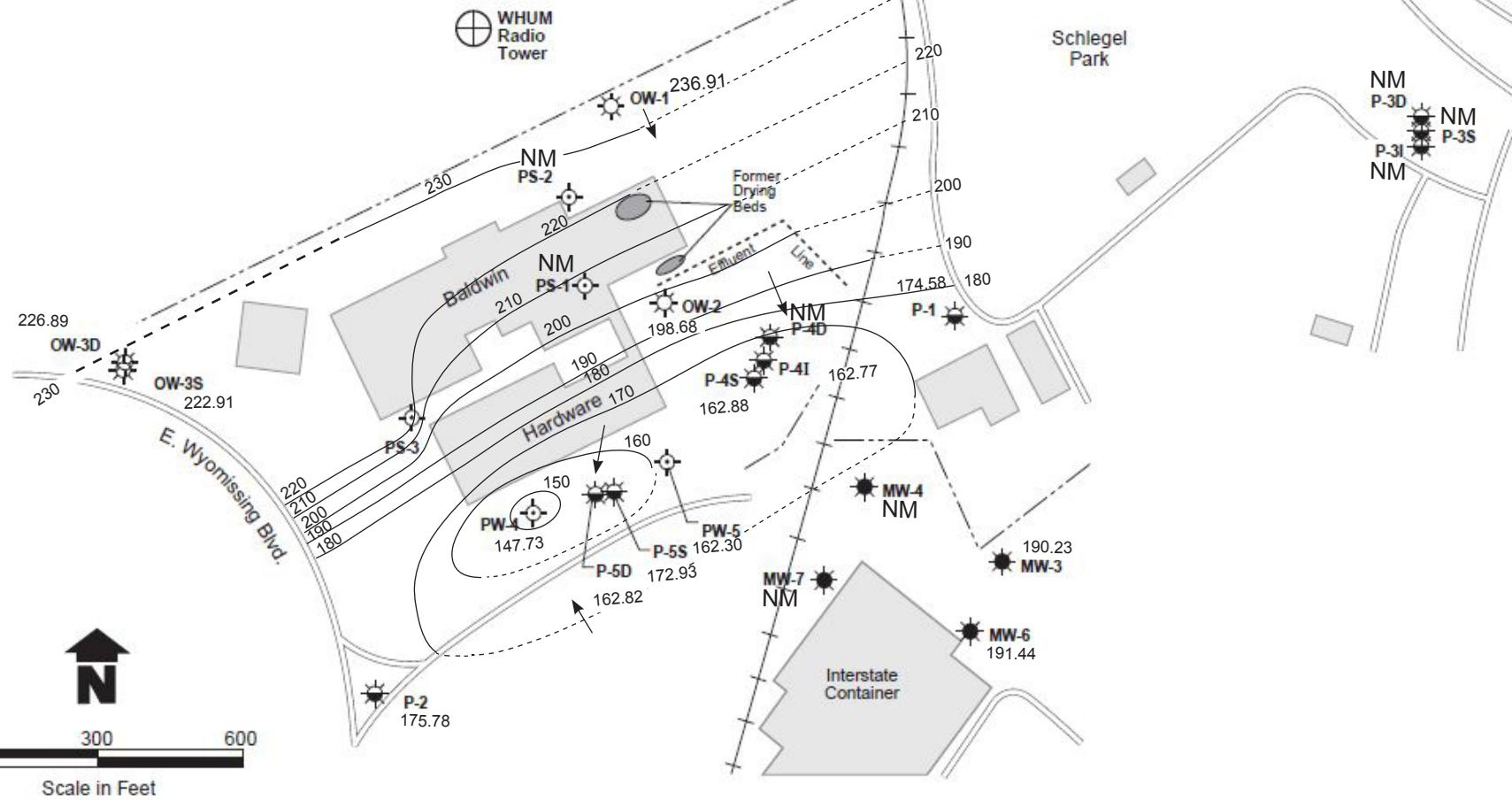
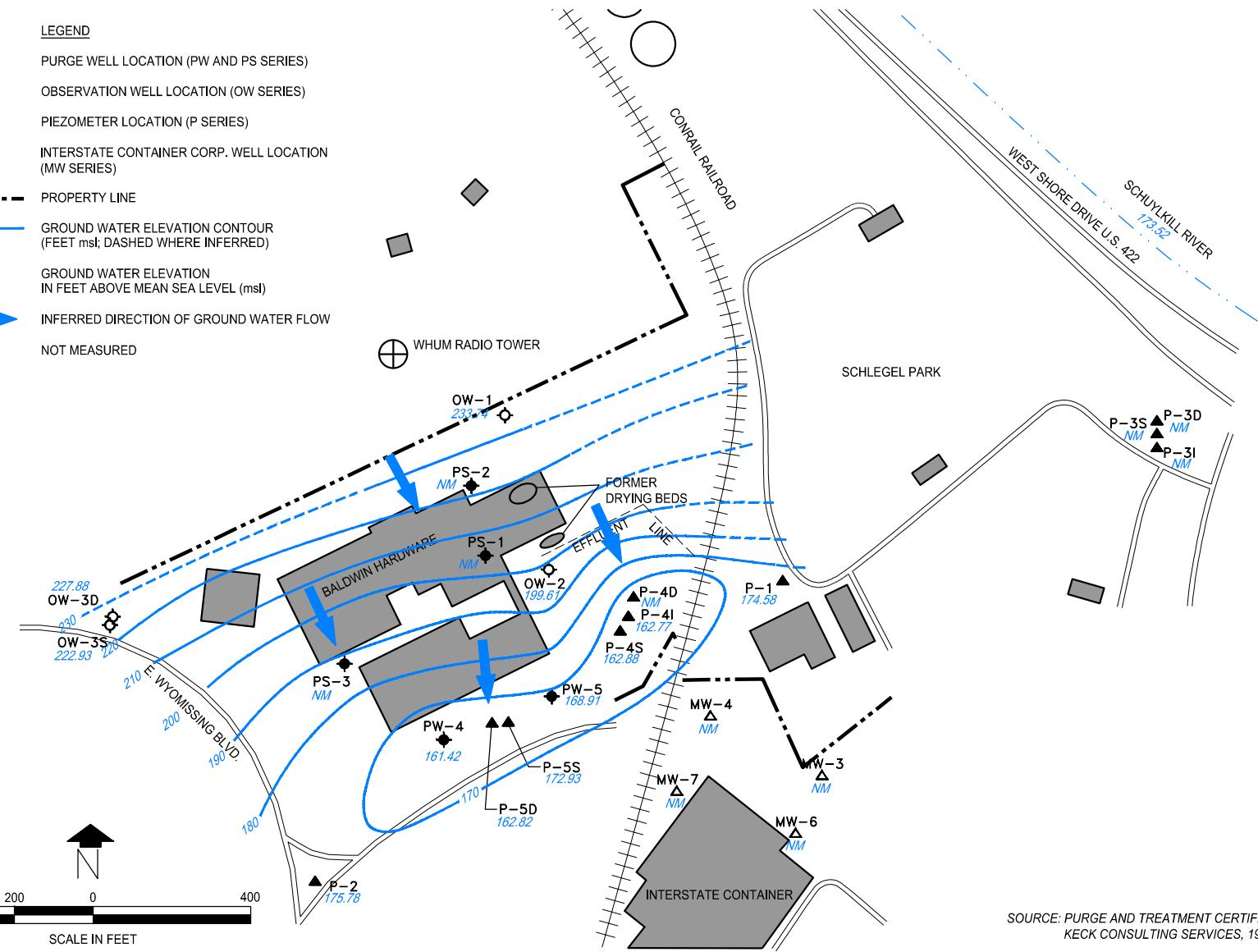


Figure 3
Ground Water Elevation
Contour Map
16 April 2013
Baldwin Hardware Corporation
Reading, Pennsylvania

FIGURE 4
GROUND WATER ELEVATION CONTOUR MAP
20 AUGUST 2013
BALDWIN HARDWARE CORPORATION
READING, PENNSYLVANIA

LEGEND

- ◆ PURGE WELL LOCATION (PW AND PS SERIES)
- ◇ OBSERVATION WELL LOCATION (OW SERIES)
- ▲ PIEZOMETER LOCATION (P SERIES)
- △ INTERSTATE CONTAINER CORP. WELL LOCATION (MW SERIES)
- - - PROPERTY LINE
- 180 GROUND WATER ELEVATION CONTOUR (FEET msl; DASHED WHERE INFERRED)
- 199.61 GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (msl)
- INFERRRED DIRECTION OF GROUND WATER FLOW
- NM NOT MEASURED



SOURCE: PURGE AND TREATMENT CERTIFICATION REPORT,
KECK CONSULTING SERVICES, 1988

Tables

Table 1
Organic Ground Water Quality Data for 4th Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	WELLS										OW-2 Duplicate
	OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5		
Trichloroethylene	ND	2.0	ND	ND	NS	1.2	0.6	3.2	87	1.9	
Cis-1,2-Dichloroethylene	ND	2.4	ND	ND	NS	ND	ND	1.1	14.6	2.4	
Tetrachloroethylene	ND	ND	ND	ND	NS	ND	ND	0.6	2.8	ND	
1,1-Dichloroethylene	ND	ND	ND	ND	NS	ND	ND	ND	0.8	ND	
Benzene	ND	ND	ND	37.1	NS	ND	ND	ND	ND	ND	
1,2-Dichloroethane	ND	ND	ND	1.6	NS	ND	ND	ND	ND	ND	
Chloroform	ND	ND	ND	ND	NS	1.7	ND	ND	0.7	ND	
Methylene Chloride	ND	ND	ND	ND	NS	0.6	ND	ND	ND	ND	
1,1,1-Trichloroethane	ND	ND	ND	ND	NS	ND	ND	1.4	2.0	ND	

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	Trip Blank	Field Blank	Bailer Rinsate
	10/29/2013	10/29/2013	10/29/2013
None	ND	ND	ND

ND - Not detected at or above laboratory reporting limits of 0.5 to 10 $\mu\text{g/l}$.

NS - Not sampled.

$\mu\text{g/l}$ - Micrograms per liter.

PS-3 sampled on 11/11/13. All other wells sampled on 10/29/13.

Table 2
Inorganic Ground Water Quality Data for 4th Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Chemistry (mg/l)	Standards	WELLS									OW-2 Duplicate
		OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5	
Specific Conductance (μmhos)	---	483	708	901	505	NS	757	355	1016	860	708
pH (standard units)	6.5-8.5 S	7.6	7.7	7.0	7.5	NS	7.5	7.1	7.6	7.6	7.7
Sulfate	250 S	20	72	40	32	NS	65	64	71	49	74
Total Organic Carbon	---	<.5	0.5	0.6	0.5	NS	0.5	1.5	0.6	0.5	0.6
Chloride	250 S	4	41	100	8	NS	41	<1	110	84	42
Cyanide, Total	0.2 *	<.004	<.004	<.004	<.004	NS	<.004	<.004	<.004	<.004	<.004
Phenols	---	<.01	<.01	0.048	<.01	NS	<.01	<.01	<.01	<.01	<.01
Total Metals (mg/l)											
Barium	2.0 P	0.057	0.053	0.167	0.128	NS	0.064	0.040	0.114	0.134	0.057
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	0.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0021	0.0024	0.0768	0.0020	NS	0.0020	0.0009	0.0034	0.0015	0.0025
Copper	1.0 S	0.002	0.001	0.002	0.001	NS	0.003	0.023	0.002	0.001	<.001
Iron	0.3 S	0.58	0.03	0.62	0.18	NS	<.02	0.91	<.02	0.03	0.04
Lead	0.015 P	0.002	<.001 <J	<.001	<.001	NS	<.001	0.004	<.001	<.001	0.005 UJ
Manganese	0.05 S	0.005	<.001	0.008	0.004	NS	0.003	0.182	<.001	<.001	<.001
Nickel	0.1 P	0.0058	0.0063	0.0334	0.0027	NS	0.0043	0.0026	0.0047	0.0063	0.0057
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Sodium	---	1.1	26.8	39.4	1.4	NS	12.6	0.9	45.4	33.9	26.8
Zinc	5.0 S	0.030	0.241	<.005	<.005	NS	0.007	0.188	0.005	0.009	0.235
Dissolved Metals (mg/l)											
Barium	2.0 P	0.055	0.055	0.154	0.118	NS	0.062	0.038	0.112	0.132	0.057
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0018	0.0021	0.0016	0.0006	NS	0.0020	0.0007	0.0033	0.0015	0.0022
Copper	1.0 S	<.001	0.001	0.002	<.001	NS	0.003	<.001	0.001	0.002	<.001
Iron	0.3 S	<.02	<.02	<.02	0.16 J	NS	<.02	0.40 J	<.02	<.02	<.02
Lead	0.015 P	<.001	<.001	<.001	<.001	NS	<.001	<.001	<.001	<.001	<.001
Manganese	0.05 S	<.001	<.001	<.001	0.004	NS	0.003	0.179	<.001	<.001	<.001
Nickel	0.1 P	0.0035	0.0067	0.0334	0.0029	NS	0.0042	0.0024	0.0047	0.0090	0.0057
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Zinc	5.0 S	0.010	0.233	<.005	<.005	NS	0.008	0.092	0.007	0.008	0.227

< - Not detected at or above indicated laboratory reporting limit.

UJ - Result is possibly biased and considered a quantitative estimate.

J - Result is possibly biased and considered a quantitative estimate.

NS - Not sampled during this quarterly event.

* No standard exists for total cyanide, value is for free cyanide.

mg/l - Milligrams per liter.

--- - No standard, S - Secondary Drinking Water Standard, P - Primary Drinking Water Standard

Shaded values exceed either the Primary or Secondary Federal Drinking Water Standard.

Table 3
Water Level Data for 1996 through 2012 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*
		2/1-2/96	4/23-24/96	7/8-9/96	10/7-8/96	1/13-14/97	4/3/1997	7/28-29/97	10/27-28/97	2/1-2/96	4/23-24/96	7/8-9/96	10/7-8/96	1/13-14/97	4/3/1997	7/28-29/97	10/27-28/97
OW-1	292.60	58.92	233.68	58.62	233.98	64.48	228.12	67.44	225.16	58.36	234.24	58.33	234.27	66.02	226.58	69.58	223.02
OW-2	251.92	47.78	204.14	47.94	203.98	53.05	198.87	56.48	195.44	51.43	200.49	48.77	203.15	57.33	194.59	56.77	195.15
OW-3S	269.37	45.15	224.22	45.25	224.12	45.94	223.43	46.48	222.89	45.47	223.90	43.60	225.77	46.47	222.90	47.34	222.03
OW-3D	269.37	40.83	228.54	38.91	230.46	43.39	225.98	44.5	224.87	39.92	229.45	40.97	228.40	43.69	225.68	46.91	222.46
PS-1	257.71	99.28	158.43	116.10	141.61	126.45	131.26	144.18	113.53	115.97	141.74	75.38	182.33	136.80	120.91	144.60	113.11
PS-2	260.11	72.62	187.49	77.36	182.75	77.4	182.71	74.62	185.49	82.22	177.89	78.79	181.32	68.30	191.81	89.00	171.11
PS-3	249.51	78.68	170.83	107.4	142.11	113.38	136.13	111.25	138.26	139.21	110.30	130.05	119.46	82.40	167.11	58.00	191.51
PW-4	234.97	56.05	178.92	59.43	175.54	70.89	164.08	76.31	158.66	75.13	159.84	73.91	161.06	85.75	149.22	90.20	144.77
PW-5	224.11	49.65	174.46	52.41	171.70	60.4	163.71	67.61	155.60	55.42	168.69	54.57	169.54	66.50	157.61	72.97	151.14
P-1	206.90	27.08	179.82	28.81	178.09	31.56	175.34	33.44	173.46	29.84	177.06	29.63	177.27	33.23	173.67	36.18	170.72
P-2	232.92	50.54	182.38	51.79	181.13	54.87	178.05	57.49	175.43	52.10	180.82	52.47	180.45	57.22	175.70	57.00	175.92
P-3S	191.84	11.37	180.47	11.84	180.00	12.98	178.86	13.32	178.52	12.61	179.23	12.10	179.74	13.17	178.67	13.64	178.20
P-3I	191.87	13.22	178.65	14.26	177.61	14.91	176.96	14.98	176.89	14.94	176.93	14.10	177.77	15.10	176.77	15.30	176.57
P-3D	192.00	10.34	181.66	11.31	180.69	12.68	179.32	13.4	178.60	12.22	179.78	11.92	180.08	12.76	179.24	13.21	178.79
P-4S	239.15	60.55	178.60	64.18	174.97	74.13	165.02	76.81	162.34	68.20	170.95	66.62	172.53	79.62	159.53	79.90	159.25
P-4I	239.15	60.72	178.43	64.35	174.80	74.29	164.86	79.7	159.45	68.29	170.86	66.66	172.49	81.19	157.96	87.53	151.62
P-4D	239.15	56.22	182.93	58.39	180.76	64.35	174.80	68.02	171.13	60.12	179.03	58.79	180.36	67.22	171.93	70.97	168.18
P-5S	231.55	Inaccessible	---	57.46	174.09	67.93	163.62	72.02	159.53	61.22	170.33	50.20	181.35	73.58	157.97	79.91	151.64
P-5D	232.23	Inaccessible	---	50.03	182.20	66.82	165.41	72.86	159.37	62.85	169.38	61.75	170.48	74.04	158.19	80.25	151.98
RIVER	215.77	41.28	174.49	42.87	172.90	43.04	172.73	42.95	172.82	43.60	172.17	42.57	173.20	43.43	172.34	44.32	171.45
Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*
		1/29-30/98	1/29-30/98	4/30-5/1/98	4/30-5/1/98	7/27-28/98	7/27-28/98	10/22-23/98	10/22-23/98	1/21-22/99	1/21-22/99	4/29-30/99	4/29-30/99	7/22-23/99	7/22-23/99	10/21-22/99	10/21-22/99
OW-1	292.60	63.22	229.38	58.48	234.12	65.32	227.28	68.20	224.40	69.57	223.03	59.78	232.82	69.38	223.22	70.03	222.57
OW-2	251.92	50.98	200.94	51.31	200.61	54.86	197.06	57.36	194.56	55.95	195.97	53.65	198.27	57.47	194.45	57.97	193.95
OW-3S	269.37	46.69	222.68	45.95	223.42	46.63	222.74	47.00	222.37	47.74	221.63	46.95	222.42	48.28	221.09	47.22	222.15
OW-3D	269.37	44.40	224.97	41.73	227.64	43.44	225.93	45.58	223.79	47.35	222.02	44.10	225.27	49.08	220.29	46.57	222.80
PS-1	257.71	56.80	200.91	161.10	96.61	175.80	81.91	199.70	58.01	206.90	50.81	173.70	84.01	210.60	47.11	208.90	48.81
PS-2	260.11	74.80	185.31	48.15	211.96	69.80	190.31	45.07	215.04	48.68	211.43	39.25	220.86	92.58	167.53	88.70	171.41
PS-3	249.51	31.50	218.01	31.00	218.51	33.40	216.11	35.47	214.04	80.88	168.63	32.32	217.19	33.80	215.71	47.48	202.03
PW-4	234.97	63.90	171.07	NM	--	83.77	151.20	83.88	151.09	80.62	154.35	87.07	147.90	84.51	150.46	84.91	150.06
PW-5	224.11	60.50	163.61	57.44	166.67	65.88	158.23	70.52	153.59	67.16	156.95	65.46	158.65	66.65	157.46	68.02	156.09
P-1	206.90	31.17	175.73	30.16	176.74	32.70	174.20	34.61	172.29	31.95	174.95	32.71	174.19	34.79	172.11	33.14	173.76
P-2	232.92	56.57	176.35	53.72	179.20	56.51	176.41	59.22	173.70	58.51	174.41	57.53	175.39	60.07	172.85	59.10	173.82
P-3S	191.84	12.18	179.66	12.21	179.63	13.17	178.67	13.19	178.65	12.18	179.66	12.81	179.03	13.67	178.17	12.57	179.27
P-3I	191.87	14.39	177.48	14.78	177.09	15.77	176.10	15.65	176.22	13.78	178.09	15.47	176.40	15.68	176.19	15.20	176.67
P-3D	192.00	11.72	180.28	11.64	180.36	12.72	179.28	12.64	179.36	11.65	180.35	12.44	179.56	12.98	179.02	11.88	180.12
P-4S	239.15	73.78	165.37	70.71	168.44	79.64	159.51	79.98	159.17	80.15	159.00	79.79	159.36	80.02	159.13	79.90	159.25
P-4I	239.15	73.82	165.33	70.79	168.36	80.08	159.07	85.01	154.14	81.42	157.73	80.55	158.60	81.99	157.16	82.57	156.58
P-4D	239.15	61.76	177.39	60.42	178.73	65.26	173.89	68.33	170.82	66.32	172.83	64.64	174.51	67.69	171.46	66.92	172.23
P-5S	231.55	66.67	164.88	63.60	167.95	72.47	159.08	77.28	154.27	73.97	157.58	73.07	158.48	74.44	157.11	74.89	156.66
P-5D	232.23	67.58	164.65	64.75	167.48	73.09	159.14	77.85	154.38	74.30	157.93	73.70	158.53	75.11	157.12	75.22	157.01
RIVER	215.77	43.27	172.50	42.62	173.15	43.80	171.97	44.43	171.34	41.37	174.40	43.65	172.12	44.06	171.71	43.13	172.64

* Feet above mean sea level.

NM - Not Measured.

Table 3 (cont.)
Water Level Data for 1996 through 2012 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Surveyed Well	Top of Casing Elevation*	Depth to Water (feet) 1/19-20/00	Water Level Elevation* 1/19-20/00	Depth to Water (feet) 4/19-20/00	Water Level Elevation* 4/19-20/00	Depth to Water (feet) 7/19-20/00	Water Level Elevation* 7/19-20/00	Depth to Water (feet) 1/25-26/01	Water Level Elevation* 1/25-26/01	Depth to Water (feet) 4/18-19/01	Water Level Elevation* 4/18-19/01	Depth to Water (feet) 7/18-19/01	Water Level Elevation* 7/18-19/01	Depth to Water (feet) 10/17-18/01	Water Level Elevation* 10/17-18/01	Depth to Water (feet) 1/15-16/02	Water Level Elevation* 1/15-16/02
OW-1	292.60	68.82	223.78	54.79	237.81	57.11	235.49	70.00	222.60	53.33	239.27	58.56	234.04	70.00	222.60	70.00	181.92
OW-2	251.92	58.75	193.17	51.54	200.38	49.65	202.27	68.88	183.04	54.68	197.24	57.44	194.48	58.00	193.92	55.55	196.37
OW-3S	269.37	48.39	220.98	46.24	223.13	46.81	222.56	48.57	220.80	46.70	222.67	46.53	222.84	47.90	221.47	48.58	220.79
OW-3D	269.37	50.32	219.05	43.96	225.41	41.77	227.60	49.76	219.61	45.60	223.77	44.14	225.23	47.60	221.77	46.80	222.57
PS-1	257.71	199.30	58.41	99.20	158.51	86.30	171.41	206.50	51.21	207.50	50.21	198.00	59.71	69.23	188.48	61.84	195.87
PS-2	260.11	96.70	163.41	99.60	160.51	NM	--	64.80	195.31	102.70	157.41	138.15	121.96	94.51	165.60	55.15	204.96
PS-3	249.51	33.00	216.51	23.22	226.29	28.11	221.40	34.40	215.11	30.50	219.01	30.16	219.35	30.65	218.86	31.85	217.66
PW-4	234.97	92.70	142.27	58.83	176.14	60.19	174.78	88.68	146.29	79.70	155.27	74.95	160.02	79.10	155.87	82.50	152.47
PW-5	224.11	72.10	152.01	52.85	171.26	53.38	170.73	71.78	152.33	62.30	161.81	63.18	160.93	67.35	156.76	70.45	153.66
P-1	206.90	34.70	172.20	29.55	177.35	30.49	176.41	36.15	170.75	34.80	172.10	31.70	175.20	34.93	171.97	36.15	170.75
P-2	232.92	61.04	171.88	53.37	179.55	54.20	178.72	62.30	170.62	56.55	176.37	56.13	176.79	60.12	172.80	61.90	171.02
P-3S	191.84	12.86	178.98	12.38	179.46	12.91	178.93	13.60	178.24	11.95	179.89	12.90	178.94	13.94	177.90	NM	--
P-3I	191.87	14.98	176.89	14.85	177.02	15.27	176.60	15.45	176.42	14.50	177.37	15.56	176.31	16.00	175.87	NM	--
P-3D	192.00	12.39	179.61	11.82	180.18	12.27	179.73	12.78	179.22	11.25	180.75	12.46	179.54	13.15	178.85	NM	--
P-4S	239.15	80.15	159.00	64.46	174.69	64.79	174.36	79.90	159.25	76.64	162.51	76.31	162.84	79.55	159.60	80.02	159.13
P-4I	239.15	86.34	152.81	64.87	174.28	65.17	173.98	86.15	153.00	76.75	162.40	76.55	162.60	81.72	157.43	84.81	154.34
P-4D	239.15	70.77	168.38	59.77	179.38	58.14	181.01	69.62	169.53	64.32	174.83	64.57	174.58	66.97	172.18	67.55	171.60
P-5S	231.55	78.60	152.95	57.02	174.53	57.38	174.17	NM	--	69.00	162.55	68.80	162.75	74.03	157.52	77.90	153.65
P-5D	232.23	78.88	153.35	59.86	172.37	60.55	171.68	78.75	153.48	69.82	162.41	69.72	162.51	74.90	157.33	76.80	155.43
RIVER	215.77	43.18	172.59	42.84	172.93	43.47	172.30	43.35	172.42	42.89	172.88	43.58	172.19	43.96	171.81	43.95	207.97

Surveyed Well	Top of Casing Elevation*	Depth to Water (feet) 4/9-10/02	Water Level Elevation* 4/9-10/02	Depth to Water (feet) 7/9-10/02	Water Level Elevation* 7/9-10/02	Depth to Water (feet) 10/9-10/02	Water Level Elevation* 10/9-10/02	Depth to Water (feet) 1/28-30/03	Water Level Elevation* 1/28-30/03	Depth to Water (feet) 4/15-16/03	Water Level Elevation* 4/15-16/03	Depth to Water (feet) 7/15-16/03	Water Level Elevation* 7/15-16/03	Depth to Water (feet) 10/14-15/03	Water Level Elevation* 10/14-15/03	Depth to Water (feet) 1/13-14/04	Water Level Elevation* 1/13-14/04
OW-1	292.60	69.20	223.40	68.70	223.90	69.10	223.50	58.00	234.60	50.95	241.65	54.33	238.27	65.03	227.57	52.61	239.99
OW-2	251.92	66.40	185.52	60.60	191.32	69.55	182.37	57.23	194.69	52.28	199.64	55.43	196.49	51.11	200.81	52.65	199.27
OW-3S	269.37	48.95	220.42	48.15	221.22	49.06	220.31	46.32	223.05	42.70	226.67	45.50	223.87	46.00	223.37	45.93	223.44
OW-3D	269.37	49.62	219.75	45.25	224.12	50.09	219.28	44.72	224.65	40.00	229.37	39.70	229.67	41.03	228.34	39.37	230.00
PS-1	257.71	169.50	88.21	100.28	157.43	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
PS-2	260.11	88.90	171.21	63.49	196.62	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
PS-3	249.51	32.25	217.26	33.61	215.90	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
PW-4	234.97	89.69	145.28	93.28	141.69	92.25	142.72	77.59	157.38	84.82	150.15	85.00	149.97	81.04	153.93	NM	--
PW-5	224.11	72.92	151.19	71.91	152.20	74.31	149.80	62.20	161.91	58.00	166.11	62.41	161.70	62.00	162.11	NM	--
P-1	206.90	36.38	170.52	35.17	171.73	38.58	168.32	NM	--	NM	--	30.25	176.65	31.01	175.89	29.92	176.98
P-2	232.92	62.85	170.07	61.46	171.46	63.84	169.08	55.62	177.30	51.13	181.79	53.76	179.16	55.31	177.61	53.10	179.82
P-3S	191.84	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
P-3I	191.87	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
P-3D	192.00	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--	NM	--
P-4S	239.15	80.48	158.67	80.00	159.15	82.23	156.92	76.02	163.13	73.25	165.90	61.00	178.15	77.19	161.96	73.31	165.84
P-4I	239.15	87.90	151.25	86.83	152.32	92.80	146.35	76.90	162.25	72.40	166.75	74.79	164.36	77.11	162.04	73.31	165.84
P-4D	239.15	69.92	169.23	68.50	170.65	72.50	166.65	62.41	176.74	60.98	178.17	74.81	164.34	61.91	177.24	59.45	179.70
P-5S	231.55	79.91	151.64	78.87	152.68	82.32	149.23	NM	--	NM	--	NM	--	NM	--	65.85	165.70
P-5D	232.23	80.35	151.88	79.56	152.67	76.06	156.17	NM	--	NM	--	NM	--	NM	--	NM	--
RIVER	215.77	43.20	172.57	44.12	171.65	43.80	171.97	39.12	176.65	45.00	170.77	44.02	171.75	37.41	178.36	43.16	172.61

* Feet above mean sea level.

NM - Not Measured.

Table 3 (cont.)
Water Level Data for 1996 through 2012 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*		
		4/12-13/04	7/19-20/04	10/11-12/04	1/17-18/05	4/11-12/05	7/11-12/05	10/11-12/05	1/12-13/06								
OW-1	292.60	52.88	239.72	50.47	242.13	53.57	239.03	50.45	242.15	49.68	242.92	56.91	235.69	65.19	227.41	60.55	232.05
OW-2	251.92	51.13	200.79	49.90	202.02	50.15	201.77	46.47	205.45	44.41	207.51	50.64	201.28	53.11	198.81	55.95	195.97
OW-3S	269.37	46.00	223.37	45.25	224.12	45.70	223.67	45.09	224.28	44.61	224.76	46.51	222.86	46.90	222.47	46.58	222.79
OW-3D	269.37	38.31	231.06	38.05	231.32	34.41	234.96	36.91	232.46	36.23	233.14	42.00	227.37	43.39	225.98	42.46	226.91
PS-1	257.71	NM	---	NM	---	NM	---	NM	---	63.91	193.80	76.50	181.21	NM	---	NM	---
PS-2	260.11	NM	---	NM	---	NM	---	NM	---	52.39	207.72	50.71	209.40	36.85	223.26	NM	---
PS-3	249.51	NM	---	NM	---	NM	---	NM	---	23.17	226.34	20.72	228.79	29.57	219.94	NM	---
PW-4	234.97	NM	---	56.02	178.95	76.01	158.96	72.63	162.34	76.84	158.13	82.75	152.22	96.35	138.62	91.69	143.28
PW-5	224.11	NM	---	49.10	175.01	52.87	171.24	53.61	170.50	55.67	168.44	57.19	166.92	61.52	162.59	58.62	165.49
P-1	206.90	31.12	175.78	27.82	179.08	25.95	180.95	NM	---	26.51	180.39	31.66	175.24	31.35	175.55	30.84	176.06
P-2	232.92	55.49	177.43	44.68	188.24	52.03	180.89	45.28	187.64	48.35	184.57	55.34	177.58	56.50	176.42	55.23	177.69
P-3S	191.84	NM	---	NM	---	NM	---	NM	---	10.93	180.91	12.16	179.68	11.39	180.45	11.50	180.34
P-3I	191.87	NM	---	NM	---	NM	---	NM	---	13.81	178.06	14.91	176.96	14.50	177.37	13.98	177.89
P-3D	192.00	NM	---	NM	---	NM	---	NM	---	10.64	181.36	12.44	179.56	11.61	180.39	11.20	180.80
P-4S	239.15	75.54	163.61	61.36	177.79	68.00	171.15	57.02	182.13	58.57	180.58	73.02	166.13	73.16	165.99	73.32	165.83
P-4I	239.15	75.60	163.55	61.50	177.65	68.22	170.93	56.71	182.44	58.90	180.25	73.00	166.15	73.16	165.99	73.25	165.90
P-4D	239.15	59.60	179.55	54.00	185.15	68.20	170.95	52.79	186.36	54.25	184.90	63.52	175.63	63.58	175.57	64.02	175.13
P-5S	231.55	68.34	163.21	55.02	176.53	61.37	170.18	NM	---	51.75	179.80	65.51	166.04	65.29	166.26	65.64	165.91
P-5D	232.23	69.20	163.03	56.70	175.53	62.60	169.63	63.04	169.19	53.95	178.28	66.41	165.82	65.91	166.32	66.23	166.00
RIVER	215.77	39.14	176.63	42.15	173.62	44.11	171.66	41.03	174.74	41.70	174.07	42.82	172.95	42.25	173.52	42.20	173.57

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*		
		4/25-26/06	7/11-12/06	11/29-30/06	11/29-30/06	3/12-13/07	3/12-13/07	5/1/2007	5/1/2007	9/18-19/07	9/18-19/07	12/10-11/07	12/10-11/07	1/28-29/08	1/28-29/08		
OW-1	292.60	60.49	232.11	62.16	230.44	54.29	238.31	52.88	239.72	51.31	241.29	69.82	222.78	69.91	222.69	69.58	223.02
OW-2	251.92	56.83	195.09	56.73	195.19	53.63	198.29	53.78	198.14	53.09	198.83	57.95	193.97	58.31	193.61	65.85	186.07
OW-3S	269.37	47.19	222.18	47.01	222.36	46.30	223.07	46.67	222.70	45.86	223.51	47.52	221.85	47.91	221.46	47.11	222.26
OW-3D	269.37	46.43	222.94	45.49	223.88	42.41	226.96	43.31	226.06	41.36	228.01	48.51	220.86	49.77	219.60	46.95	222.42
PS-1	257.71	NM	---	NM	---	NM	---	130.05	127.66	129.28	128.43	119.56	138.15	118.64	139.07	142.16	115.55
PS-2	260.11	NM	---	NM	---	NM	---	96.00	164.11	97.11	163.00	94.50	165.61	96.13	163.98	101.75	158.36
PS-3	249.51	30.32	219.19	28.68	220.83	28.56	220.95	29.15	220.36	28.41	221.10	32.41	217.10	31.41	218.10	33.41	216.10
PW-4	234.97	90.51	144.46	82.85	152.12	94.75	140.22	85.21	149.76	61.93	173.04	95.45	139.52	92.23	142.74	94.11	140.86
PW-5	224.11	60.25	163.86	57.00	167.11	56.21	167.90	56.07	168.04	52.82	171.29	63.20	160.91	61.64	162.47	60.16	163.95
P-1	206.90	31.58	175.32	30.58	176.32	29.93	176.97	27.62	179.28	29.24	177.66	31.15	175.75	32.59	174.31	32.05	174.85
P-2	232.92	57.05	175.87	54.60	178.32	53.82	179.10	54.26	178.66	52.35	180.57	54.42	178.50	57.83	175.09	56.58	176.34
P-3S	191.84	11.62	180.22	14.32	177.52	11.29	180.55	10.98	180.86	11.45	180.39	12.15	179.69	11.79	180.05	12.12	179.72
P-3I	191.87	14.11	177.76	14.19	177.68	14.13	177.74	13.02	178.85	14.49	177.38	18.01	173.86	14.68	177.19	14.94	176.93
P-3D	192.00	11.83	180.17	11.41	180.59	11.35	180.65	10.76	181.24	11.53	180.47	13.62	178.38	11.49	180.51	12.39	179.61
P-4S	239.15	75.09	164.06	71.72	167.43	70.68	168.47	70.35	168.80	66.66	172.49	70.05	169.10	76.44	162.71	75.25	163.90
P-4I	239.15	75.09	164.06	71.72	167.43	70.65	168.50	70.41	168.74	66.72	172.43	70.16	168.99	76.44	162.71	75.33	163.82
P-4D	239.15	66.32	172.83	63.72	175.43	62.40	176.75	62.58	176.57	60.99	178.16	64.44	174.71	66.59	172.56	67.03	172.12
P-5S	231.55	64.40	167.15	64.13	167.42	63.35	168.20	63.71	167.84	59.25	172.30	61.33	170.22	68.93	162.62	67.59	163.96
P-5D	232.23	67.95	164.28	65.02	167.21	63.95	168.28	64.32	167.91	60.41	171.82	62.71	169.52	68.63	163.60	68.11	164.12
RIVER	215.77	41.88	173.89	42.00	173.77	41.81	173.96	40.25	175.52	42.27	173.50	43.13	172.64	43.79	171.98	42.85	172.92

* Feet above mean sea level.

NM - Not Measured.

(1) Outer well casing broken off to ground level.

Table 3 (cont.)
Water Level Data for 1996 through 2012 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*
	5/5-6/2008	5/5-6/2008	8/24-25/2008	8/24-25/2008	12/10-11/2008	12/10-11/2008	2/17-18/2009	2/17-18/2009	6/16-17/2009	6/16-17/2009	8/17-18/2009	8/17-18/2009	11/16-30/2009	11/16-30/2009	3/1-5/2010	3/1-5/2010	
OW-1	292.60	58.14	234.46	70.00	222.60	70.19	222.41	69.69	222.91	67.71	224.89	67.64	224.96	66.20	226.40	53.54	239.06
OW-2	251.92	57.07	194.85	58.62	193.30	58.64	193.28	57.38	194.54	55.45	196.47	55.75	196.17	55.22	196.70	51.01	200.91
OW-3S	269.37	46.71	222.66	37.34	232.03	48.59	220.78	47.41	221.96	47.58	221.79	47.03	222.34	46.90	222.47	46.04	223.33
OW-3D	269.37	45.95	223.42	49.85	219.52	51.01	218.36	47.91	221.46	48.49	220.88	46.00	223.37	46.29	223.08	42.30	227.07
PS-1	257.71	161.45	96.26	143.71	114.00	81.52	176.19	68.98	188.73	84.61	173.10	63.65	194.06	63.75	193.96	60.21	197.50
PS-2	260.11	NM	---	102.22	157.89	NM	---										
PS-3	249.51	29.94	219.57	33.94	215.57	31.92	217.59	30.05	219.46	38.92	210.59	29.86	219.65	29.94	219.57	20.64	228.87
PW-4	234.97	88.64	146.33	95.60	139.37	93.49	141.48	88.72	146.25	90.11	144.86	88.65	146.32	91.53	143.44	91.93	143.04
PW-5	224.11	57.33	166.78	61.50	162.61	70.02	154.09	65.31	158.80	63.65	160.46	61.95	162.16	61.74	162.37	54.65	169.46
P-1	206.90	28.48	178.42	33.47	173.43	36.35	170.55	33.56	173.34	35.37	171.53	32.13	174.77	31.48	175.42	22.31	184.59
P-2	232.92	54.31	178.61	57.73	175.19	61.51	171.41	58.73	174.19	60.27	172.65	56.93	175.99	56.31	176.61	47.98	184.94
P-3S	191.84	11.12	180.72	15.96	175.88	12.13	179.71	12.24	179.60	13.41	178.43	NM	---	NM	---	NM	---
P-3I	191.87	13.64	178.23	12.92	178.95	14.91	176.96	15.17	176.70	15.89	175.98	NM	---	NM	---	NM	---
P-3D	192.00	11.31	180.69	13.03	178.97	12.20	179.80	12.28	179.72	13.46	178.54	NM	---	NM	---	NM	---
P-4S	239.15	71.89	167.26	77.02	162.13	79.99	159.16	79.80	159.35	78.26	160.89	77.60	161.55	76.98	162.17	67.60	171.55
P-4I	239.15	71.87	167.28	77.11	162.04	84.58	154.57	80.13	159.02	78.28	160.87	77.62	161.53	77.03	162.12	68.43	170.72
P-4D	239.15	63.31	175.84	67.44	171.71	71.56	167.59	67.02	172.13	(1)	---	NM	---	NM	---	NM	---
P-5S	231.55	62.27	169.28	69.41	162.14	76.76	154.79	72.41	159.14	70.35	161.20	70.15	161.40	69.42	162.13	60.22	171.33
P-5D	232.23	64.54	167.69	70.00	162.23	77.38	154.85	73.15	159.08	71.35	160.88	71.00	161.23	70.33	161.90	61.53	170.70
RIVER	215.77	39.19	176.58	43.29	172.48	41.30	174.47	43.92	171.85	41.05	174.72	42.16	173.61	41.12	174.65	39.67	176.10

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*	Depth to Water (feet)	Water Level Elevation*
	5/18-19/2010	5/18-19/2010	8/16-24/2010	8/16-24/2010	11/15-16/2010	11/15-16/2010	3/7-11/2011	3/7-11/2011	5/16-17/2011	5/16-17/2011	9/16-17/2011	9/16-17/2011	11/30-12/1/2011	11/30-12/1/2011	2/13/2012	2/13/2012	
OW-1	292.60	53.86	238.74	68.78	223.82	70.22	222.38	52.21	240.39	53.00	239.60	54.67	237.93	51.95	240.65	52.33	240.27
OW-2	251.92	52.86	199.06	57.83	194.09	57.71	194.21	51.59	200.33	53.03	198.89	51.50	200.42	51.89	200.03	53.09	198.83
OW-3S	269.37	46.05	223.32	47.03	222.34	47.31	222.06	46.79	222.58	45.86	223.51	45.62	223.75	45.64	223.73	45.95	223.42
OW-3D	269.37	43.93	225.44	46.79	222.58	47.28	222.09	45.30	224.07	42.37	227.00	41.19	228.18	42.43	226.94	43.68	225.69
PS-1	257.71	62.63	195.08	68.00	189.71	69.42	188.29	62.95	194.76	60.94	196.77	58.53	199.18	60.27	197.44	62.65	195.06
PS-2	260.11	NM	---														
PS-3	249.51	22.81	226.70	28.24	221.27	29.65	219.86	22.16	227.35	24.81	224.70	22.14	227.37	24.58	224.93	26.88	222.63
PW-4	234.97	95.35	139.62	94.23	140.74	91.85	143.12	92.94	142.03	89.45	145.52	95.85	139.12	85.22	149.75	87.31	147.66
PW-5	224.11	56.46	167.65	63.65	160.46	64.49	159.62	57.75	166.36	56.67	167.44	48.55	175.56	51.55	172.56	56.92	167.19
P-1	206.90	30.21	176.69	32.48	174.42	33.05	173.85	20.68	186.22	29.65	177.25	24.80	182.10	28.05	178.85	29.56	177.34
P-2	232.92	55.63	177.29	57.57	175.35	57.99	174.93	44.45	188.47	54.93	177.99	50.14	182.78	51.45	181.47	53.04	179.88
P-3S	191.84	NM	---														
P-3I	191.87	NM	---														
P-3D	192.00	NM	---														
P-4S	239.15	75.37	163.78	77.66	161.49	78.16	160.99	65.84	173.31	75.77	163.38	70.98	168.17	65.76	173.39	67.19	171.96
P-4I	239.15	76.95	162.20	78.39	160.76	78.79	160.36	65.21	173.94	76.28	162.87	70.12	169.03	65.73	173.42	67.14	172.01
P-4D	239.15	NM	---														
P-5S	231.55	68.44	163.11	70.32	161.23	70.93	160.62	57.79	173.76	67.85	163.70	62.22	169.33	58.54	173.01	60.23	171.32
P-5D	232.23	69.41	162.82	71.14	161.09	71.51	160.72	58.33	173.90	68.76	163.47	63.84	168.39	59.81	172.42	61.97	170.26
RIVER	215.77	47.18	168.59	49.98	165.79	49.23	166.54	30.56	185.21	46.33	169.44	39.58	176.19	42.36	173.41	49.68	166.09

* Feet above mean sea level.

NM - Not Measured.

(1) Outer well casing broken off to ground level.

Table 3 (cont.)
Water Level Data for 1996 through 2013 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Well	Surveyed Top of Casing Elevation*	Depth to Water (feet) 5/14-15/2012	Water Level Elevation* 5/14-15/2012	Depth to Water (feet) 8/15/2012	Water Level Elevation* 8/15/2012	Depth to Water (feet) 11/15-16/12	Water Level Elevation* 11/15-16/12	Depth to Water (feet) 1/22/2013	Water Level Elevation* 1/22/2013	Depth to Water (feet) 4/16/2013	Water Level Elevation* 4/16/2013	Depth to Water (feet) 8/20/2013	Water Level Elevation* 8/20/2013	Depth to Water (feet) 10/29-30/2013	Water Level Elevation* 10/29-30/2013
OW-1	292.60	62.19	230.41	69.43	223.17	69.21	223.39	63.08	229.52	55.69	236.91	58.86	233.74	68.23	224.37
OW-2	251.92	55.81	196.11	57.21	194.71	67.25	225.35	65.63	186.29	53.24	198.68	52.31	199.61	69.63	182.29
OW-3S	269.37	46.31	223.06	47.73	221.64	47.22	204.70	43.96	225.41	46.46	222.91	46.44	222.93	46.15	223.22
OW-3D	269.37	46.02	223.35	48.70	220.67	72.83	196.54	45.04	224.33	42.48	226.89	41.49	227.88	73.04	196.33
PS-1	257.71	58.47	199.24	69.42	188.29	NM	---	NM	---	NM	---	NM	---	NM	---
PS-2	260.11	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---
PS-3	249.51	22.94	226.57	26.45	223.06	NM	---	NM	---	NM	---	NM	---	NM	---
PW-4	234.97	95.98	138.99	98.87	136.10	85.73	163.78	84.20	150.77	87.24	147.73	73.55	161.42	80.63	154.34
PW-5	224.11	62.44	161.67	56.70	167.41	59.32	175.65	63.62	160.49	61.81	162.30	55.20	168.91	68.32	155.79
P-1	206.90	32.12	174.78	29.42	177.48	31.57	192.54	32.70	174.20	32.32	174.58	32.32	174.58	33.95	172.95
P-2	232.92	56.60	176.32	53.67	179.25	55.96	150.94	58.02	174.90	57.14	175.78	57.14	175.78	56.55	176.37
P-3S	191.84	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---
P-3I	191.87	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---
P-3D	192.00	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---
P-4S	239.15	70.49	168.66	73.47	165.68	74.22	117.78	78.21	160.94	76.27	162.88	76.27	162.88	79.81	159.34
P-4I	239.15	70.42	168.73	73.09	166.06	74.20	164.95	78.25	160.90	76.38	162.77	76.38	162.77	81.74	157.41
P-4D	239.15	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---	NM	---
P-5S	231.55	64.14	167.41	66.74	164.81	69.64	169.51	70.57	160.98	58.62	172.93	58.62	172.93	74.91	156.64
P-5D	232.23	65.73	166.50	68.05	164.18	67.26	164.29	71.30	160.93	69.41	162.82	69.41	162.82	74.73	157.50
RIVER	215.77	48.30	167.47	41.38	174.39	46.14	246.46	45.16	170.61	42.25	173.52	42.25	173.52	43.21	172.56

* Feet above mean sea level.

NM - Not Measured.

(1) Outer well casing broken off to ground level.

Table 4
Monthly Treatment System Influent and Effluent TCE Concentrations
for 1995 through 2013 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Sample	Trichloroethene (µg/l)																							
	1995												1996											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Combined Influent	340	419	417	533	403	379	343	399	345	393	224	376	530	554	625	902	623	418	495	810	629	484	556	910
Effluent	4	5	3	7	3	3	1	1	9	8	2	4	3	7	5	8	8	3	8	9	4	6	8	8
PS-1	569	988	1180	940	692	526	488	534	529	480	533	631	907	983	638	597	526	488	476	654	509	536	559	701
PS-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PW-4	1442	1699	1792	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PW-5	254	231	253	350	390	295	263	347	248	367	223	254	424	592	453	740	466	455	416	537	451	378	415	764
Blank	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	5	2	1	3	2	0	NR	2	0
Blank	NS	NS	NS	NS	NS	NS	NS	0	NS	NS	NS	NS	0	NS	1	NS	NS	0	NS	NS	NS	NR	10	NR

Table 4 (continued)
Monthly Treatment System Influent and Effluent TCE Concentrations
for 1995 through 2013 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Table 4 (continued)
Monthly Treatment System Influent and Effluent TCE Concentrations
for 1995 through 2013 Quarterly Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Sample	Trichloroethene (µg/l)												
	2013												
Jan	Feb	March	Apr	May	June	July	6-Sep	9-Sep	Oct	Nov	Dec	Dec ⁽³⁾	
Tower Influent	36	<5	44	36	58	32	42	61	68	98	53	80	93
Tower Effluent	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	NS	<5
PS-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PS-2	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	NS
PW-4	30	9	<5	46	<5	<5	<5	NS	<5	<5	<5	<5	NS
PW-5	36	44	33	<5	62	35	44	NS	67	138	93	116	NS
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

µg/l - Micrograms per liter.

NR - Not Reported.

NS - Not Sampled.

< - Not detected at or above the indicated reporting limit.

* In August 2004, Baldwin Hardware determined that the variable frequency drive for the PS-2 well pump had malfunctioned and not operated correctly for an indeterminate time. Subsequent comparison of the PS-2 flow rate and concentration data to the Tower influent flow rate and concentration data suggests that the PS-2 well pump may not have run consistently since 2000. The results for well PS-2 between January 2000 and July 2004 are flagged (*) to note this.

** - This concentration is considered anomalously high based on the combined Influent concentration.

*** - This is a confirmation sample collected on 30 July 2007. Original sample collected on 17 July 2007.

(1) - This concentration is considered anomalously high based on the individual well concentrations. Additionally, the second vial had a concentration of 80 ug/L which is more consistent with the historic TCE concentrations and the concentrations of TCE in the individual well samples.

(2) - It appears that the analytical results for the May 2008 influent/effluent results have been switched, although ERM was unable to confirm this with the laboratory.

(3) - Tower Effluent valve was frozen during the initial December sampling event. Tower Effluent and Tower Influent samples were collected on 12/20/13.

Table 5
Organic Ground Water Quality Data for 1st Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	WELLS									OW-1 Duplicate
	OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5	
Trichloroethylene	ND	1.7	ND	ND	NS	1.4	ND	12.8	28.4	ND
Cis-1,2-Dichloroethylene	ND	2.6	ND	ND	NS	0.6	ND	8.5	5.2	ND
Tetrachloroethylene	ND	ND	ND	ND	NS	ND	ND	1.0	2.0	ND
1,1-Dichloroethane	ND	ND	ND	ND	NS	ND	ND	2.8	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	30.8	NS	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	1.7	NS	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	NS	1.2	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	NS	ND	ND	11.2	0.7	ND

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	Quality Control Samples		
	Trip Blank	Field Blank	Bailer Rinsate
	1/21/2013	1/21/2013	1/21/2013
Chloroform	ND	4.5	2.9

ND - Not detected at or above laboratory reporting limits of 0.5 to 10 $\mu\text{g/l}$.

NS- Not Sampled during the this event.

$\mu\text{g/l}$ - Micrograms per liter.

Table 6
Organic Ground Water Quality Data for 2nd Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	WELLS										OW-2 Duplicate
	OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5		
Trichloroethylene	ND	1.6	ND	ND	NS	1.3	ND	0.9	47.0		1.6
Cis-1,2-Dichloroethylene	ND	2.4	ND	ND	NS	0.6	ND	1.4	6.6		2.4
Tetrachloroethylene	ND	ND	ND	ND	NS	ND	ND	0.7	3.0		ND
1,1-Dichloroethane	ND	ND	ND	ND	NS	ND	ND	1.0	ND		ND
1,1-Dichloroethylene	ND	ND	ND	ND	NS	ND	ND	ND	ND		ND
Benzene	ND	ND	ND	38.7	NS	ND	ND	ND	ND		ND
1,2-Dichloroethane	ND	ND	ND	1.6	NS	ND	ND	ND	ND		ND
Chloroform	ND	ND	ND	ND	NS	< 1.1	ND	ND	ND		ND
1,1,1-Trichloroethane	ND	ND	ND	ND	NS	ND	ND	3.7	1.4		ND

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	Quality Control Samples				
	Trip Blank 4/15/2013	Trip Blank 4/16/2013	Field Blank 4/15/2013	Field Blank 4/16/2013	Bailer Rinsate 4/15/2013
	ND	ND	13.3	ND	12.8

ND - Not detected at or above laboratory reporting limits of 0.5 to 10 $\mu\text{g/l}$.

NS- Not Sampled during this event.

$\mu\text{g/l}$ - Micrograms per liter.

< - Parameter was not detected at a level above that detected in blank sample

Table 7
Organic Ground Water Quality Data for 3rd Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	WELLS										OW-2 Duplicate
	OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5		
Trichloroethene	ND	4.4	ND	ND	NS	0.6	0.8	1.2	45	4.4	
Cis-1,2-Dichloroethylene	ND	3.6	ND	ND	NS	ND	ND	1.3	7.4	3.7	
Tetrachloroethylene	ND	ND	ND	ND	NS	ND	ND	0.6	1.8	ND	
1,1-Dichloroethane	ND	ND	ND	ND	NS	ND	ND	0.6	ND	ND	
Ethylbenzene	ND	ND	ND	ND	NS	ND	1.1	ND	ND	ND	
Toluene	ND	ND	ND	ND	NS	ND	0.5	ND	ND	ND	
Benzene	ND	ND	ND	39.4	NS	ND	ND	ND	ND	ND	
1,2-Dichloroethane	ND	ND	ND	1.7	NS	ND	ND	ND	ND	ND	
Chloroform	ND	ND	ND	ND	NS	1.6	ND	ND	ND	ND	
1,1,1-Trichloroethane	ND	ND	ND	ND	NS	ND	ND	2.2	1.2	ND	

Detected Volatile Organic Compounds ($\mu\text{g/l}$)	Trip Blank 8/20/2013	Field Blank 8/20/2013	Bailer Rinsate 8/20/2013
None	ND	ND	ND

ND - Not detected at or above laboratory reporting limits of 0.5 to 10 $\mu\text{g/l}$.

NS- Not Sampled during the this event.

$\mu\text{g/l}$ - Micrograms per liter.

Table 8
Inorganic Ground Water Quality Data for 1st Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Chemistry (mg/l)	Standards	WELLS									OW-1 Duplicate
		OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5	
Specific Conductance (μmhos)	---	493	726	1208	521	NS	773	397	931	850	493
pH (standard units)	6.5-8.5 S	7.6	7.0	6.9	7.6	NS	7.2	8.0	7.4	7.7	7.6
Sulfate	250 S	21	76	60	33	NS	69	72	68	52	21
Total Organic Carbon	---	1.0	1.1	1.3	1.1	NS	1.2	<.5	1.3	1.1	1.0
Chloride	250 S	4	43	180	10	NS	43	1	97	79	4
Cyanide, Total	0.2 *	<.004	<.004	<.004	<.004	NS	<0.004	<.004	<.004	<.004	<.004
Phenols	---	0.011	0.019	0.022	<.01	NS	0.012	<.01	0.016	<.01	<.01
Total Metals (mg/l)											
Barium	2.0 P	0.056	0.054	0.216	0.143	NS	0.073	0.049	0.127	0.146	0.063
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0028	0.0102	0.320	0.0025	NS	0.0016	0.0010	0.0045	0.0016	0.0028
Copper	1.0 S	0.003	<.001	0.006	<.001	NS	0.007	0.021	0.002	0.002	0.002
Iron	0.3 S	2.56	0.21	1.46	0.23	NS	0.04	0.68	<.02	0.04	2.33
Lead	0.015 P	0.008 J	0.005	<.001	<.001	NS	0.001	0.006	<.001	0.150	0.006 J
Manganese	0.05 S	0.021	0.002	0.038	0.004	NS	0.004	0.034	<.001	<.001	0.021
Nickel	0.1 P	0.0039	0.0063	0.0503	0.0033	NS	0.0053	0.0022	0.0035	0.0049	0.0036
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005 J	<.0005 J
Sodium	---	1.4	26.8	58.3	2.0	NS	12.8	1.0	36.7	32.8	1.3
Zinc	5.0 S	0.035	0.264	<.005	<.005	NS	0.012	0.127	<.005	0.007	0.033
Dissolved Metals (mg/l)											
Barium	2.0 P	0.058	0.053	0.205	0.139	NS	0.072	0.048	0.132	0.146	0.065
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0028	0.0018	0.0023	0.0013	NS	0.0016	0.0012	0.0048	0.0017	0.0027
Copper	1.0 S	0.002	<.001	<.001	<.001	NS	0.009	0.003	0.002	0.002	<.001
Iron	0.3 S	0.03	<.02	<.02	0.18	NS	<.02	0.33	<.02	0.03	<.02
Lead	0.015 P	<.001	<.001	<.001	<.001	NS	0.001	<.001	<.001	0.129	<.001
Manganese	0.05 S	0.005	<.001	0.001	0.004	NS	0.003	0.028	<.001	<.001	0.004
Nickel	0.1 P	0.0034	0.0059	0.0351	0.0030	NS	0.0052	0.0022	0.0036	0.0056	0.0039
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005 J	<.0005 J
Zinc	5.0 S	0.012 J	0.222	<.005	<.005	NS	0.015	0.053	0.007	0.012	0.007 J

< - Not detected at or above indicated laboratory reporting limit.

J - Result is possibly biased and considered a quantitative estimate.

NS - Not sampled during this quarterly event.

* - No standard exists for total cyanide, value is for free cyanide.

mg/l - Milligrams per liter.

--- - No standard, S - Secondary Drinking Water Standard, P - Primary Drinking Water Standard

Shaded values exceed either the Primary or Secondary Federal Drinking Water Standard.

Table 9
Inorganic Ground Water Quality Data for 2nd Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Chemistry (mg/l)	Standards	WELLS									OW-2 Duplicate
		OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5	
Specific Conductance (μmhos)	---	467	711	910	504	NS	746	397	904	824	711
pH (standard units)	6.5-8.5 S	7.5	7.6	6.8	7.3	NS	7.4	6.8	7.6	7.5	7.6
Sulfate	250 S	21	70	40	31	NS	63	69	62	45	72
Total Organic Carbon	---	0.6	0.7	0.7	0.6	NS	0.7	<.5	0.7	0.5	0.6
Chloride	250 S	4	41	100	8	NS	41	1	92	75	42
Cyanide, Total	0.2 *	<.004	<.004	<.004	<.004	NS	<0.004	<.004	<.004	<.004	<.004
Phenols	---	<.01	<.01	<.01	0.010	NS	0.013	<.01	0.016	<.01	0.017
Total Metals (mg/l)											
Barium	2.0 P	0.050	0.055	0.175	0.131	NS	0.062	0.045	0.109	0.130	0.054
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0020	0.0037	0.329	0.0047	NS	0.0034	0.0013	0.0052	0.0020	0.0044
Copper	1.0 S	<.001	<.001	0.005	<.001	NS	0.004	0.010	0.001	<.001	<.001
Iron	0.3 S	0.07	0.10	1.90	0.17	NS	<.02	0.42	<.02	<.02	0.10
Lead	0.015 P	<.001	0.002	<.001	<.001	NS	<.001	0.002	<.001	<.001	0.002
Manganese	0.05 S	<.001	0.001	0.043	0.005	NS	0.003	0.031	<.001	<.001	<.001
Nickel	0.1 P	0.0030	0.0059	0.0612	0.0035	NS	0.0046	0.0018	0.0049	0.0050	0.0065
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Sodium	---	1.2	27.2	37.8	1.5	NS	12.7	0.8	39.2	31.5	27.5
Zinc	5.0 S	0.006	0.270	<.005	<.005	NS	0.006	0.081	<.005	<.005	0.265
Dissolved Metals (mg/l)											
Barium	2.0 P	0.051	0.054	0.159	0.137	NS	0.061	0.045	0.109	0.128	0.056
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0017	0.0022	0.0018	0.0014	NS	0.0035	0.0013	0.0054	0.0020	0.0025
Copper	1.0 S	<.001	<.001	<.001	<.001	NS	0.005	<.001	<.001	<.001	<.001
Iron	0.3 S	<.02	<.02	<.02	0.15	NS	<.02	0.32	<.02	<.02	<.02
Lead	0.015 P	<.001	<.001	<.001	<.001	NS	<.001	<.001	<.001	<.001	<.001
Manganese	0.05 S	<.001	<.001	0.002	0.005	NS	0.004	0.031	<.001	<.001	<.001
Nickel	0.1 P	0.0030	0.0058	0.0496	0.0029	NS	0.0046	0.0019	0.0047	0.0051	0.0067
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Zinc	5.0 S	0.007	0.258	<.005	<.005	NS	0.008	0.046	<.005	<.005	0.256

< - Not detected at or above indicated laboratory reporting limit.

NS - Not sampled during this quarterly event.

* No standard exists for total cyanide, value is for free cyanide.

mg/l - Milligrams per liter.

--- - No standard, S - Secondary Drinking Water Standard, P - Primary Drinking Water Standard

Shaded values exceed either the Primary or Secondary Federal Drinking Water Standard.

Table 10
Inorganic Ground Water Quality Data for 3rd Quarter 2013 Sampling
Baldwin Hardware Corporation, Reading, Pennsylvania

Chemistry (mg/l)	Standards	WELLS									OW-2 Duplicate
		OW-1	OW-2	OW-3S	OW-3D	PS-1	PS-2	PS-3	PW-4	PW-5	
Specific Conductance (μmhos)	---	464	708	875	501	NS	722	376	969	822	708
pH (standard units)	6.5-8.5 S	7.4	7.4	6.5	7.4	NS	7.1	8.0	6.6	7.6	7.4
Sulfate	250 S	19	73	40	31	NS	60	62	66	44	72
Total Organic Carbon	---	<.5	0.8	0.6	0.6	NS	0.8	1	0.7	<.5	0.5
Chloride	250 S	4	37	90	7	NS	34	<1	94	66	37
Cyanide, Total	0.2 *	<.004	<.004	<.004	<.004	NS	<.004	<.004	<.004	<.004	<.004
Phenols	---	<.01	<.01	<.01	<.01	NS	<.01	<.01	<.01	<.01	<.01
Total Metals (mg/l)											
Barium	2.0 P	0.045	0.048	0.186	0.113	NS	0.055	0.060	0.108	0.124	0.047
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0020	0.0023	1.95	0.0037	NS	0.0056	0.0013	0.0053	0.0023	0.0024
Copper	1.0 S	<.001	<.001	0.034	<.001	NS	0.004	0.012	0.002	<.001	<.001
Iron	0.3 S	0.04	0.02	9.47	0.13	NS	<.02	0.58	<.02	<.02	0.03
Lead	0.015 P	<.001	<.001	<.001	<.001	NS	0.001	0.003	<.001	<.001	<.001
Manganese	0.05 S	<.001	<.001	0.231	0.005	NS	0.002	0.192	<.001	0.003	0.001
Nickel	0.1 P	0.0031	0.0050	0.166	0.0029	NS	0.0054	0.0030	0.0051	0.0054	0.0051
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Sodium	---	1.0	27.1	37.3	1.3	NS	10.9	0.9	43.5	30.3	26.8
Zinc	5.0 S	0.011	0.212	0.005	<.005	NS	0.013	0.201	0.008	0.013	0.222
Dissolved Metals (mg/l)											
Barium	2.0 P	0.049	0.048	0.154	0.120	NS	0.054	0.058	0.110	0.120	0.044
Cadmium	0.005 P	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Chromium	0.1 P	0.0020	0.0021	0.0032	0.0015	NS	0.0058	0.0015	0.0054	0.0027	0.0023
Copper	1.0 S	0.001	<.001	<.001	<.001	NS	0.003	0.014	0.002	0.001	<.001
Iron	0.3 S	<.02	<.02	<.02	0.12	NS	<.02	0.08	<.02	<.02	<.02
Lead	0.015 P	<.001	<.001	<.001	<.001	NS	<.001	<.001	<.001	<.001	<.001
Manganese	0.05 S	<.001	<.001	0.005	0.005	NS	<.001	0.185	<.001	<.001	<.001
Nickel	0.1 P	0.0029	0.0048	0.0651	0.0034	NS	0.0042	0.0028	0.0054	0.0056	0.0051
Silver	0.1 S	<.0005	<.0005	<.0005	<.0005	NS	<.0005	<.0005	<.0005	<.0005	<.0005
Zinc	5.0 S	0.022	0.205	<.005	<.005	NS	0.008	0.090	0.009	0.012	0.214

< - Not detected at or above indicated laboratory reporting limit.

NS - Not sampled during this quarterly event.

* No standard exists for total cyanide, value is for free cyanide.

mg/l - Milligrams per liter.

--- - No standard, S - Secondary Drinking Water Standard, P - Primary Drinking Water Standard

Shaded values exceed either the Primary or Secondary Federal Drinking Water Standard.

Appendix A
Laboratory Analytical Report



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 10/21/13
 Lab ID: 761-13-0046609

Date Collected: 10/15/13 12:30
 Collected By: pgb

Sample Desc: Field Blank

Date Received: 10/15/13 13:25

Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloroform	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	10/17	00:29	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.





CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 10/21/13
 Lab ID: 761-13-0046610

Date Collected: 10/15/13 12:40
 Collected By: pgb

Sample Desc: Tower Influent

Date Received: 10/15/13 13:25

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chloroform	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	10/16	11:38	GXF
cis-1,2-Dichloroethylene	15	ug/l	5	1	EPA 624	10/16	11:38	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Trichloroethylene	98	ug/l	5	5	EPA 624	10/16	11:38	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
Reported To: Baldwin Hardware Corporation
841 E. Wyomissing Blvd.
Reading PA 19611

Date of Report: 10/21/13
Lab ID: 761-13-0046611

Date Collected: 10/15/13 12:35
Collected By: pgb

Sample Desc: Tower Effluent

Date Received: 10/15/13 13:25

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
-----	-----	-----	-----	-----	-----	-----	-----	-----

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloroform	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	10/17	00:29	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
Reported To: Baldwin Hardware Corporation
841 E. Wyomissing Blvd.
Reading PA 19611

Date of Report: 10/21/13
Lab ID: 761-13-0046612

Date Collected: 10/15/13 12:45
Collected By: pgb

Sample Desc: PS-2

Date Received: 10/15/13 13:25

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
-----	-----	-----	-----	-----	-----	-----	-----	-----

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloroform	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	10/17	00:29	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	10/17	00:29	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
Reported To: Baldwin Hardware Corporation
841 E. Wyomissing Blvd.
Reading PA 19611

Date of Report: 10/21/13
Lab ID: 761-13-0046613

Date Collected: 10/15/13 13:05
Collected By: pgb

Sample Desc: PW-4

Date Received: 10/15/13 13:25

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Chloroform	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	10/16	11:38	GXF
cis-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF
Trichloroethylene	<5	ug/L	5	1	EPA 624	10/16	11:38	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
Reported To: Baldwin Hardware Corporation
841 E. Wyomissing Blvd.
Reading PA 19611

Date of Report: 10/21/13
Lab ID: 761-13-0046614

Date Collected: 10/15/13 13:00
Collected By: pgb

Sample Desc: PW-5

Date Received: 10/15/13 13:25

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
ORGANIC VOLATILES								
1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chloroform	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	10/16	11:38	GXF
cis-1,2-Dichloroethylene	20	ug/l	5	1	EPA 624	10/16	11:38	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	10/16	11:38	GXF
Trichloroethylene	138	ug/l	5	5	EPA 624	10/16	11:38	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050580

Date Collected: 11/11/13 09:05
 Collected By: pgb

Sample Desc: Field Blank

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloroform	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	11/14	09:11	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050581

Date Collected: 11/11/13 09:15
 Collected By: pgb

Sample Desc: Tower Influent

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Chloroform	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	11/13	09:08	GXF
cis-1,2-Dichloroethylene	9	ug/l	5	1	EPA 624	11/13	09:08	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/13	09:08	GXF
Trichloroethylene	53	ug/l	5	5	EPA 624	11/13	09:08	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050582

Date Collected: 11/11/13 09:10
 Collected By: pgb

Sample Desc: Tower Effluent

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloroform	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	11/14	09:11	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF

COMMENTS

- 01 For the epa 624 procedure, the matrix spike performed on the sample was low for 2-Butanone and 2-Hexanone.

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050583

Date Collected: 11/11/13 09:20
 Collected By: pgb

Sample Desc: PS-2

Date Received: 11/11/13 14:50

Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloroform	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	11/14	09:11	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF

COMMENTS

- 01 The sample vial was checked for residual chlorine after the epa 624 procedure. The sample tested positive for residual chlorine.

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050584

Date Collected: 11/11/13 09:35
 Collected By: pgb

Sample Desc: PW-4

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

**ORGANIC
VOLATILES**

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloroform	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	11/14	09:11	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	11/14	09:11	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 11/19/13
 Lab ID: 761-13-0050585

Date Collected: 11/11/13 09:30
 Collected By: pgb

Sample Desc: PW-5

Date Received: 11/11/13 14:50

Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Chloroform	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	11/13	09:08	GXF
cis-1,2-Dichloroethylene	14	ug/L	5	1	EPA 624	11/13	09:08	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	11/13	09:08	GXF
Trichloroethylene	93	ug/L	5	5	EPA 624	11/14	09:11	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 12/17/13
 Lab ID: 761-13-0054801

Date Collected: 12/11/13 09:15
 Collected By: pgb

Sample Desc: Field Blank

Date Received: 12/11/13 15:30

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
ORGANIC VOLATILES								
1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloroform	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	12/13	08:47	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Dave Hancock
Reported To: Baldwin Hardware Corporation
841 E. Wyomissing Blvd.
Reading PA 19611

Date of Report: 12/17/13
Lab ID: 761-13-0054802
Date Collected: 12/11/13 09:25
Collected By: pgb

Sample Desc: Tower Influent Date Received: 12/11/13 15:30

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
-----	-----	-----	-----	-----	-----	-----	-----	-----

ORGANIC

VOLATILES

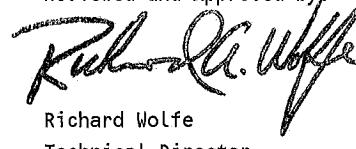
1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloroform	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	12/13	08:47	GXF
cis-1,2-Dichloroethylene	15	ug/l	5	1	EPA 624	12/13	08:47	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Trichloroethylene	80	ug/l	5	10	EPA 624	12/13	08:47	GXF

COMMENTS

01 For the epa 624/sw846 8260 procedure, the matrix spike performed on the sample was low for 2-Butanone.

Distribution of Reports:
email: K. Hinckley - Stanley Black and Decker
email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:



Richard Wolfe
Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 01/02/14
 Lab ID: 761-13-0056577

Date Collected: 12/20/13 15:45
 Collected By: PGB

Sample Desc: Field Blank

Date Received: 12/20/13 16:10

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	------------	---------------	-----------	-----------	-----------	---------

**ORGANIC
VOLATILES**

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Chloroform	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	12/23	09:23	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	12/23	09:23	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



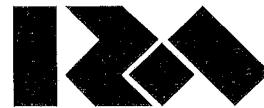
ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 01/02/14
 Lab ID: 761-13-0056578

Date Collected: 12/20/13 15:55
 Collected By: PGB

Sample Desc: Tower Influent

Date Received: 12/20/13 16:10

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	------------	---------------	-----------	-----------	-----------	---------

ORGANIC VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chloroform	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	12/23	09:23	GXF
cis-1,2-Dichloroethylene	16	ug/L	5	1	EPA 624	12/23	09:23	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Trichloroethylene	93	ug/L	5	10	EPA 624	12/23	09:23	GXF

COMMENTS

01 For the epa 624 procedure, the matrix spike performed on the sample was low for Acetone.

Distribution of Reports:
 email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 01/02/14
 Lab ID: 761-13-0056579

Date Collected: 12/20/13 15:50
 Collected By: PGB

Sample Desc: Tower Effluent

Date Received: 12/20/13 16:10

Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	------------	---------------	-----------	-----------	-----------	---------

ORGANIC VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chloroform	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	12/23	09:23	GXF
cis-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF
Trichloroethylene	<5	ug/L	5	1	EPA 624	12/23	09:23	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 12/17/13
 Lab ID: 761-13-0054804

Date Collected: 12/11/13 09:30
 Collected By: pgb

Sample Desc: PS-2

Date Received: 12/11/13 15:30

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chloroform	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	12/13	08:47	GXF
cis-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Trichloroethylene	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker

email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 12/17/13
 Lab ID: 761-13-0054805
 Date Collected: 12/11/13 09:45
 Collected By: pgb

Sample Desc: PW-4

Date Received: 12/11/13 15:30

Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Bromoform (Tribromomethane)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chlorodibromomethane	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloroform	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Chloromethane (Methyl Chloride)	<10	ug/l	10	1	EPA 624	12/13	08:47	GXF
cis-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
trans-1,2-Dichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF
Trichloroethylene	<5	ug/l	5	1	EPA 624	12/13	08:47	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker
 email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Dave Hancock
 Reported To: Baldwin Hardware Corporation
 841 E. Wyomissing Blvd.
 Reading PA 19611

Date of Report: 12/17/13
 Lab ID: 761-13-0054806
 Date Collected: 12/11/13 09:35
 Collected By: pgb

Sample Desc: PW-5

Date Received: 12/11/13 15:30

Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--------	------	-----------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1-Dichloroethane	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Bromoform (Tribromomethane)	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chlorobenzene (Monochlorobenzene)	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chlorodibromomethane	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chloroform	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Chloromethane (Methyl Chloride)	<10	ug/L	10	1	EPA 624	12/13	08:47	GXF
cis-1,2-Dichloroethylene	20	ug/L	5	1	EPA 624	12/13	08:47	GXF
trans-1,2-Dichloroethylene	<5	ug/L	5	1	EPA 624	12/13	08:47	GXF
Trichloroethylene	116	ug/L	5	10	EPA 624	12/13	08:47	GXF

Distribution of Reports:

email: K. Hinckley - Stanley Black and Decker

email: K. Bitjeman - Loureiro Engineering Associates Inc

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 1

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048629
 Date Collected: 10/29/13 11:35
 Collected By: PGB

Sample Desc: OW-1 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/L	.004	1	10204001X	10/30	14:30	JCL
Phenols (4AAP)	<.01	mg/L	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	4	mg/L	2	2	EPA 300.0	10/29	20:23	JCL
Sulfate	20	mg/L	2	2	EPA 300.0	10/29	20:23	JCL
OTHER								
Total Organic Carbon	<.5	mg/L	.5	1	SM5310 C	10/29	18:36	ALD
FIELD								
PHYSICAL								
Conductivity-Field	483	umhos/cm	1	1	SM 2510B	10/29	11:35	PGB
pH-Field	7.6	su	1	1	SM4500H-B	10/29	11:35	PGB
Temperature - Field	13.8	C	.1	1	SM 2550B	10/29	11:35	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.055	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Chromium, Dissolved	0.0018	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Copper, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Iron, Dissolved	<.02	mg/L	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Nickel, Dissolved	0.0035	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Silver, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Zinc, Dissolved	0.010	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
TOTAL								
Barium, Total	0.057	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Total	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Chromium, Total	0.0021	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048629

Date Collected: 10/29/13 11:35
 Collected By: PGB

Sample Desc: OW-1 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
Copper, Total	0.002	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Iron, Total	0.58	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	0.002	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Total	0.005	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Nickel, Total	0.0058	mg/l	.0005	1	EPA 200.8	10/30	15:44	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	15:44	RLS
Sodium, Total	1.1	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.030	mg/l	.005	1	EPA 200.8	10/30	15:44	RLS

ORGANIC

VOLATILES

1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048629
 Date Collected: 10/29/13 11:35
 Collected By: PGB

Sample Desc: OW-1 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
			Limit	Factor				
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048630

Date Collected: 10/29/13 12:40
 Collected By: PGB

Sample Desc: OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/L	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/L	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	41	mg/L	5	5	EPA 300.0	10/29	20:49	JCL
Sulfate	72	mg/L	5	5	EPA 300.0	10/29	20:49	JCL
OTHER								
Total Organic Carbon	0.5	mg/l	.5	1	SM5310 C	10/29	18:36	ALD
FIELD								
PHYSICAL								
Conductivity-Field	708	umhos/cm	1	1	SM 2510B	10/29	12:40	PGB
pH-Field	7.7	su	1	1	SM4500H-B	10/29	12:40	PGB
Temperature - Field	16.2	C	1	1	SM 2550B	10/29	12:40	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.055	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Chromium, Dissolved	0.0021	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Copper, Dissolved	0.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Iron, Dissolved	<.02	mg/L	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Nickel, Dissolved	0.0067	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Silver, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Zinc, Dissolved	0.233	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
TOTAL								
Barium, Total	0.053	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Total	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Chromium, Total	0.0024	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.





CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048630
 Date Collected: 10/29/13 12:40
 Collected By: PGB

Sample Desc: OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
Copper, Total	0.001	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Iron, Total	0.03	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Nickel, Total	0.0063	mg/l	.0005	1	EPA 200.8	10/30	15:44	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	15:44	RLS
Sodium, Total	26.8	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.241	mg/l	.005	1	EPA 200.8	10/30	15:44	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.





CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048630
 Date Collected: 10/29/13 12:40
 Collected By: PGB

Sample Desc: OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
cis-1,2-Dichloroethylene	2.4	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	2.0	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

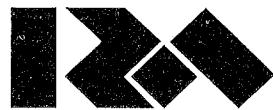
PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048631
 Date Collected: 10/29/13 09:50
 Collected By: PGB

Sample Desc: OW-3S Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/L	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	0.048	mg/L	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	100	mg/L	10	10	EPA 300.0	10/29	21:14	JCL
Sulfate	40	mg/L	10	10	EPA 300.0	10/29	21:14	JCL
OTHER								
Total Organic Carbon	0.6	mg/L	.5	1	SM5310 C	10/31	18:57	ALD
FIELD								
PHYSICAL								
Conductivity-Field	901	umhos/cm	1	1	SM 2510B	10/29	09:50	PGB
pH-Field	7.0	su	1	1	SM4500H-B	10/29	09:50	PGB
Temperature - Field	14.5	C	.1	1	SM 2550B	10/29	09:50	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.154	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0016	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	0.002	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/L	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0334	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	15:44	RLS
Zinc, Dissolved	<.005	mg/L	.005	1	EPA 200.8	10/30	21:49	RLS
TOTAL								
Barium, Total	0.167	mg/L	.005	1	EPA 200.8	10/30	15:44	RLS
Cadmium, Total	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0768	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048631

Date Collected: 10/29/13 09:50
 Collected By: PGB

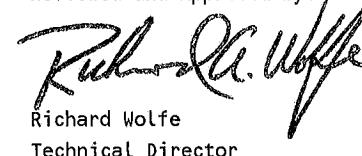
Sample Desc: OW-3S Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Time	Analyst
Copper, Total	0.002	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	0.62	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	15:44	RLS
Manganese, Total	0.008	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0334	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	39.4	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:


 Richard Wolfe
 Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048631

Date Collected: 10/29/13 09:50
 Collected By: PGB

Sample Desc: OW-3S Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

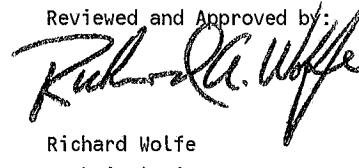
Date of Report: 11/07/13
 Lab ID: 761-13-0048632
 Date Collected: 10/29/13 10:20
 Collected By: PGB

Sample Desc: OH-3D Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/l	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/l	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	8	mg/l	2	2	EPA 300.0	10/29	21:40	JCL
Sulfate	32	mg/l	2	2	EPA 300.0	10/29	21:40	JCL
OTHER								
Total Organic Carbon	0.5	mg/l	.5	1	SM5310 C	10/31	18:57	ALD
FIELD								
PHYSICAL								
Conductivity-Field	505	umhos/cm	1	1	SM 2510B	10/29	10:20	PGB
pH-Field	7.5	su	1	1	SM4500H-B	10/29	10:20	PGB
Temperature - Field	13.7	c	.1	1	SM 2550B	10/29	10:20	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.118	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0006	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	0.16	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	0.004	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0029	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
TOTAL								
Barium, Total	0.128	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0020	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:

 Richard Wolfe
 Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048632

Date Collected: 10/29/13 10:20
 Collected By: PGB

Sample Desc: OW-3D Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
Copper, Total	0.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	0.18	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	0.004	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0027	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	1.4	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	1.6	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	37.1	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048632
 Date Collected: 10/29/13 10:20
 Collected By: PGB

Sample Desc: OW-3D Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048633

Date Collected: 10/29/13 13:30
 Collected By: PGB

Sample Desc: PS-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	------------	---------------	-----------	-----------	-----------	---------

CHEMISTRY

COLORMETRIC

Cyanide, Total	<.004	mg/l	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/l	.01	1	EPA 420.4	11/01	14:41	JCL

ION CHROMAT

Chloride	41	mg/l	5	5	EPA 300.0	10/29	22:06	JCL
Sulfate	65	mg/l	5	5	EPA 300.0	10/29	22:06	JCL

OTHER

Total Organic Carbon	0.5	mg/l	.5	1	SM5310 C	10/31	18:57	ALD
----------------------	-----	------	----	---	----------	-------	-------	-----

FIELD

PHYSICAL

Conductivity-Field	757	umhos/cm	1	1	SM 2510B	10/29	13:30	PGB
pH-Field	7.5	su	1	1	SM4500H-B	10/29	13:30	PGB
Temperature - Field	15.8	c	.1	1	SM 2550B	10/29	13:30	PGB

INORGANIC

DISSOLVED

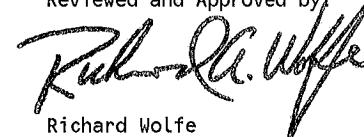
Barium, Dissolved	0.062	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0020	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	0.003	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	0.003	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0042	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	0.008	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS

TOTAL

Barium, Total	0.064	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0020	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:


Richard Wolfe

Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048633
 Date Collected: 10/29/13 13:30
 Collected By: PGB

Sample Desc: PS-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Date	Test Time	Test Analyst
Copper, Total	0.003	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	0.003	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0043	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	12.6	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.007	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	1.7	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
Reported To: Environmental Resources Mgt. Inc.
200 Harry S. Truman Pkwy
Suite 400
Annapolis MD 21401

Date of Report: 11/07/13
Lab ID: 761-13-0048633

Date Collected: 10/29/13 13:30
Collected By: PGB

Sample Desc: PS-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
			Limit	Factor				
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	0.6	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	1.2	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/21/13
 Lab ID: 761-13-0050579

Date Collected: 11/11/13 09:00
 Collected By: pgb

Sample Desc: PS-3 Baldwin Hardware Facility

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	-----------	---------------	-----------	-----------	-----------	---------

CHEMISTRY

COLORMETRIC

Cyanide, Total	0.004	mg/L	.004	1	10204001X	11/14	12:57	JCL
Phenols (4AAP)	<.01	mg/L	.01	1	EPA 420.4	11/20	13:51	JCL

ION CHROMAT

Chloride	1	mg/L	1	1	EPA 300.0	11/12	09:40	JAE
Sulfate	64	mg/L	5	5	EPA 300.0	11/12	12:02	JAE

OTHER

Total Organic Carbon	1.5	mg/L	.5	1	SM5310 C	11/12	19:01	ALD
----------------------	-----	------	----	---	----------	-------	-------	-----

FIELD

PHYSICAL

Conductivity-Field	355	umhos/cm	1	1	SM 2510B	11/11	09:00	PGB
pH-Field	7.1	su	1	1	SM4500H-B	11/11	09:00	PGB
Temperature - Field	14.3	C	.1	1	SM 2550B	11/11	09:00	PGB

INORGANIC

DISSOLVED

Barium, Dissolved	0.038	mg/L	.005	1	EPA 200.8	11/14	15:57	LNA
Cadmium, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA
Chromium, Dissolved	0.0007	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA
Copper, Dissolved	<.001	mg/L	.001	1	EPA 200.8	11/14	15:57	LNA
Iron, Dissolved	0.40	mg/L	.02	1	EPA 200.7	11/14	12:32	LNA
Lead, Dissolved	<.001	mg/L	.001	1	EPA 200.8	11/14	15:57	LNA
Manganese, Dissolved	0.179	mg/L	.001	1	EPA 200.8	11/14	15:57	LNA
Nickel, Dissolved	0.0024	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA
Silver, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA
Zinc, Dissolved	0.092	mg/L	.005	1	EPA 200.8	11/14	15:57	LNA

TOTAL

Barium, Total	0.040	mg/L	.005	1	EPA 200.8	11/14	15:57	LNA
Cadmium, Total	0.0005	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA
Chromium, Total	0.0009	mg/L	.0005	1	EPA 200.8	11/14	15:57	LNA

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.





CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/21/13
 Lab ID: 761-13-0050579

Date Collected: 11/11/13 09:00
 Collected By: pgb

Sample Desc: PS-3 Baldwin Hardware Facility

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
Copper, Total	0.023	mg/l	.001	1	EPA 200.8	11/14	15:57	LNA
Iron, Total	0.91	mg/l	.02	1	EPA 200.7	11/14	12:32	LNA
Lead, Total	0.004	mg/l	.001	1	EPA 200.8	11/14	15:57	LNA
Manganese, Total	0.182	mg/l	.001	1	EPA 200.8	11/14	15:57	LNA
Nickel, Total	0.0026	mg/l	.0005	1	EPA 200.8	11/14	15:57	LNA
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	11/14	15:57	LNA
Sodium, Total	0.9	mg/l	.5	1	EPA 200.7	11/12	09:20	LNA
Zinc, Total	0.188	mg/l	.005	1	EPA 200.8	11/14	15:57	LNA

ORGANIC

VOLATILES

1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/13	09:08	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/13	09:08	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/21/13
 Lab ID: 761-13-0050579

Date Collected: 11/11/13 09:00
 Collected By: pgb

Sample Desc: PS-3 Baldwin Hardware Facility

Date Received: 11/11/13 14:50

	Result	Unit	Rep Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Trichloroethylene	0.6	ug/l	.5	1	SW846 8260	11/13	09:08	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/13	09:08	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/13	09:08	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.

Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048635
 Date Collected: 10/29/13 14:15
 Collected By: PGB

Sample Desc: PW-4 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/L	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/L	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	110	mg/L	10	10	EPA 300.0	10/30	11:28	JCL
Sulfate	71	mg/L	5	5	EPA 300.0	10/29	22:31	JCL
OTHER								
Total Organic Carbon	0.6	mg/l	.5	1	SM5310 C	10/29	18:36	ALD
FIELD								
PHYSICAL								
Conductivity-Field	1016	umhos/cm	1	1	SM 2510B	10/29	14:15	PGB
pH-Field	7.6	su	1	1	SM4500H-B	10/29	14:15	PGB
Temperature - Field	15.6	C	.1	1	SM 2550B	10/29	14:15	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.112	mg/L	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0033	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	0.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/L	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	<.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0047	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	0.007	mg/L	.005	1	EPA 200.8	10/30	21:49	RLS
TOTAL								
Barium, Total	0.114	mg/L	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0034	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:



Richard Wolfe
Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048635

Date Collected: 10/29/13 14:15
 Collected By: PGB

Sample Desc: PW-4 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Date	Test Time	Test Analyst
	-----	-----	-----	-----	-----	-----	-----	-----
Copper, Total	0.002	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	<.02	mg/L	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	<.001	mg/L	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0047	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/L	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	45.4	mg/L	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.005	mg/L	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	1.4	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/L	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/L	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.

Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048635

Date Collected: 10/29/13 14:15
 Collected By: PGB

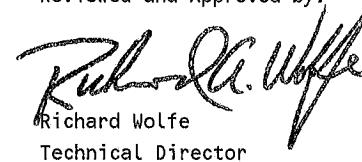
Sample Desc: PW-4 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
	-----	-----	-----	-----	-----	-----	-----	-----
cis-1,2-Dichloroethylene	1.1	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	0.6	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	3.2	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:



Richard Wolfe
Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048636

Date Collected: 10/29/13 14:00
 Collected By: PGB

Sample Desc: PW-5 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	------------	---------------	-----------	-----------	-----------	---------

CHEMISTRY

COLORMETRIC

Cyanide, Total	<.004	mg/l	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/l	.01	1	EPA 420.4	11/01	14:41	JCL

ION CHROMAT

Chloride	84	mg/l	5	5	EPA 300.0	10/29	22:57	JCL
Sulfate	49	mg/l	5	5	EPA 300.0	10/29	22:57	JCL

OTHER

Total Organic Carbon	0.5	mg/l	.5	1	SM5310 C	10/31	18:57	ALD
----------------------	-----	------	----	---	----------	-------	-------	-----

FIELD

PHYSICAL

Conductivity-Field	860	umhos/cm	1	1	SM 2510B	10/29	14:00	PGB
pH-Field	7.6	su	1	1	SM4500H-B	10/29	14:00	PGB
Temperature - Field	13.8	c	.1	1	SM 2550B	10/29	14:00	PGB

INORGANIC

DISSOLVED

Barium, Dissolved	0.132	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0015	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	0.002	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0090	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	0.008	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS

TOTAL

Barium, Total	0.134	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0015	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by

 Richard Wolfe
 Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048636

Date Collected: 10/29/13 14:00
 Collected By: PGB

Sample Desc: PW-5 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Date	Test Time	Test Analyst
Copper, Total	0.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	0.03	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0063	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	33.9	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.009	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	2.0	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	0.8	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	0.7	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048636
 Date Collected: 10/29/13 14:00
 Collected By: PGB

Sample Desc: PW-5 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
			Limit	Factor				
cis-1,2-Dichloroethylene	14.6	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	2.8	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	87	ug/l	2.5	5	SW846 8260	11/05	09:15	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048637
 Date Collected: 10/29/13 12:40
 Collected By: PGB

Sample Desc: Duplicate @ Well OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORMETRIC								
Cyanide, Total	<.004	mg/l	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/l	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	42	mg/l	5	5	EPA 300.0	10/29	23:22	JCL
Sulfate	74	mg/l	5	5	EPA 300.0	10/29	23:22	JCL
OTHER								
Total Organic Carbon	0.6	mg/l	.5	1	SM5310 C	10/31	18:57	ALD
FIELD								
PHYSICAL								
Conductivity-Field	708	umhos/cm	1	1	SM 2510B	10/29	12:40	PGB
pH-Field	7.7	su	1	1	SM4500H-B	10/29	12:40	PGB
Temperature - Field	16.2	c	.1	1	SM 2550B	10/29	12:40	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	0.057	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	0.0022	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	0.0057	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	0.227	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
TOTAL								
Barium, Total	0.057	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	0.0025	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048637

Date Collected: 10/29/13 12:40
 Collected By: PGB

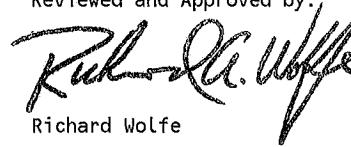
Sample Desc: Duplicate @ Well OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
Copper, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	0.04	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	0.005	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	0.0057	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	26.8	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	0.235	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:


Richard Wolfe
Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048637
 Date Collected: 10/29/13 12:40
 Collected By: PGB

Sample Desc: Duplicate @ Well OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
cis-1,2-Dichloroethylene	2.4	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	1.9	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director



CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048638
 Date Collected: 10/29/13 08:15
 Collected By: PGB

Sample Desc: Day 1 Trip Blank Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
--	--------	------	------------	---------------	-----------	-----------	-----------	---------

ORGANIC

VOLATILES

1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	08:57	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Bromoform (Tribromomethane)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 2

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
Reported To: Environmental Resources Mgt. Inc.
200 Harry S. Truman Pkwy
Suite 400
Annapolis MD 21401

Date of Report: 11/07/13
Lab ID: 761-13-0048638
Date Collected: 10/29/13 08:15
Collected By: PGB

Sample Desc: Day 1 Trip Blank Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Trichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 2 of 2

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048639

Date Collected: 10/29/13 10:10
 Collected By: PGB

Sample Desc: Day 1 Field Blank @ OW3D Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	08:57	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Bromoform (Tribromomethane)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
cis-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
cis-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Dichlorobromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Dichlorodifluoromethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Ethylbenzene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Methylene Chloride	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Tetrachloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Toluene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 2

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current
 NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

CERTIFICATE OF ANALYSIS
M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048639
 Date Collected: 10/29/13 10:10
 Collected By: PGB

Sample Desc: Day 1 Field Blank @ OW3D Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
			Limit	Factor				
trans-1,2-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
trans-1,3-Dichloropropylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Trichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF
Trichlorofluoromethane	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Vinyl Chloride	<1	ug/l	1	1	SW846 8260	11/01	08:57	GXF
Xylenes (Total)	<.5	ug/l	.5	1	SW846 8260	11/01	08:57	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 2 of 2

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048640

Date Collected: 10/29/13 13:00
 Collected By: PGB

Sample Desc: Rinsate Water Blank @ OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Test Date	Test Time	Analyst
CHEMISTRY								
COLORIMETRIC								
Cyanide, Total	<.004	mg/l	.004	1	10204001X	10/04	18:00	JCL
Phenols (4AAP)	<.01	mg/l	.01	1	EPA 420.4	11/01	14:41	JCL
ION CHROMAT								
Chloride	<1	mg/l	1	1	EPA 300.0	10/29	23:48	JCL
Sulfate	<1	mg/l	1	1	EPA 300.0	10/29	23:48	JCL
OTHER								
Total Organic Carbon	<.5	mg/l	.5	1	SM5310 C	10/31	18:57	ALD
FIELD								
PHYSICAL								
Conductivity-Field	1	umhos/cm	1	1	SM 2510B	10/29	13:00	PGB
pH-Field	8.8	su	1	1	SM4500H-B	10/29	13:00	PGB
Temperature - Field	15.3	c	.1	1	SM 2550B	10/29	13:00	PGB
INORGANIC								
DISSOLVED								
Barium, Dissolved	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Copper, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Dissolved	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Dissolved	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Dissolved	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Zinc, Dissolved	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
TOTAL								
Barium, Total	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
Cadmium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Chromium, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
 Technical Director

Page 1 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
 Reported To: Environmental Resources Mgt. Inc.
 200 Harry S. Truman Pkwy
 Suite 400
 Annapolis MD 21401

Date of Report: 11/07/13
 Lab ID: 761-13-0048640

Date Collected: 10/29/13 13:00
 Collected By: PGB

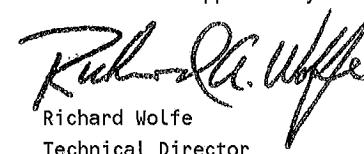
Sample Desc: Rinsate Water Blank @ OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep. Limit	Dilutn Factor	Procedure	Date	Test Time	Test Analyst
Copper, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Iron, Total	<.02	mg/l	.02	1	EPA 200.7	10/31	10:00	LNA
Lead, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Manganese, Total	<.001	mg/l	.001	1	EPA 200.8	10/30	21:49	RLS
Nickel, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Silver, Total	<.0005	mg/l	.0005	1	EPA 200.8	10/30	21:49	RLS
Sodium, Total	<.5	mg/l	.5	1	EPA 200.7	11/04	10:16	LNA
Zinc, Total	<.005	mg/l	.005	1	EPA 200.8	10/30	21:49	RLS
ORGANIC								
VOLATILES								
1,1,1-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2,2-Tetrachloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1,2-Trichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,1-Dichloroethylene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloroethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,2-Dichloropropane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,3-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
1,4-Dichlorobenzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
2-Chloroethylvinyl Ether	<10	ug/l	10	1	SW846 8260	11/01	21:41	GXF
Benzene	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Bromoform (Tribromomethane)	<2	ug/l	2	1	SW846 8260	11/01	21:41	GXF
Bromomethane (Methyl Bromide)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Carbon Tetrachloride	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorobenzene (Monochlorobenzene)	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chlorodibromomethane	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloroethane	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF
Chloroform	<.5	ug/l	.5	1	SW846 8260	11/01	21:41	GXF
Chloromethane (Methyl Chloride)	<1	ug/l	1	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:


 Richard Wolfe
 Technical Director

Page 2 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence



CERTIFICATE OF ANALYSIS

M.J. Reider Associates, Inc.



Attention: Robin Guynn
Reported To: Environmental Resources Mgt. Inc.
200 Harry S. Truman Pkwy
Suite 400
Annapolis MD 21401

Date of Report: 11/07/13
Lab ID: 761-13-0048640
Date Collected: 10/29/13 13:00
Collected By: PGB

Sample Desc: Rinsate Water Blank @ OW-2 Baldwin Hardware Facility

Date Received: 10/29/13 15:05

	Result	Unit	Rep.	Dilutn	Procedure	Test Date	Test Time	Analyst
			Limit	Factor				
cis-1,2-Dichloroethylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
cis-1,3-Dichloropropylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorobromomethane	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Dichlorodifluoromethane	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF
Ethylbenzene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Methylene Chloride	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Tetrachloroethylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Toluene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,2-Dichloroethylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
trans-1,3-Dichloropropylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Trichloroethylene	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF
Trichlorofluoromethane	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF
Vinyl Chloride	<1	ug/L	1	1	SW846 8260	11/01	21:41	GXF
Xylenes (Total)	<.5	ug/L	.5	1	SW846 8260	11/01	21:41	GXF

Distribution of Reports:

Reviewed and Approved by:

Richard Wolfe
Technical Director

Page 3 of 3

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.



ENVIRONMENTAL TESTING LABORATORY 107 ANGELICA STREET, READING, PA 19611

PHONE: 610-374-5129 • FAX: 610-374-7234 • www.mjreider.com

NELAP accredited by PA. (PADEP #06-00003) (NYSDOH11630) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.



ACIL Seal of Excellence

Appendix B
*Pennsylvania Department of Environmental
Resources Water Quality Reporting Forms*



Date Prepared/Revised

11/7/2013

DEP USE ONLY

Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: OW-1

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 27.4 "

Longitude: 75° 56 ' 27.5 "

Depth to Water Level: 60.04 ft.

Measured From: Land Surface TOC

Casing Stickup: 3.54 ft.

Elevation of Water Level: 232.56 ft./MSL

Sampling Depth: 68.23 ft.

Volume of Water Column: 12.32 gal.

Total Well Depth: 79.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: 3

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Date: (mm/dd/yy) 10/29/2013 Sample Collection Time: 1135

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048629 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments: _____

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	4.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	580	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	5	epa 200.8
Manganese (µg/l), Dissolved**	<1	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.6	SM4500H-B
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	1.1	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	483	SM 2510B
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	20	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	<.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	13.8	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	<.5	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	<.5	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	57	epa 200.8
Barium, Dissolved	55	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	2.1	epa 200.8
Chromium, Dissolved	1.8	epa 200.8
Copper, Total	2	epa 200.8
Copper, Dissolved	<1	epa 200.8
Lead, Total	2	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	30	epa 200.8
Zinc, Dissolved	10	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	5.8	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	3.5	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-1
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised
11/7/2013
DEP USE ONLY
Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: OW-2

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 22.4 "

Longitude: 75° 56 ' 26.1 "

Depth to Water Level: 56.50 ft.

Measured From: Land Surface TOC

Casing Stickup: 3.50 ft.

Elevation of Water Level: 195.42 ft./MSL

Sampling Depth: 69.63 ft.

Volume of Water Column: 28.28 gal.

Total Well Depth: 100.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: 3

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Date: (mm/dd/yy) 10/29/2013

Sample Collection Time: 1240

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048630 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments: _____

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	41.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	30	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	<1	epa 200.8
Manganese (µg/l), Dissolved**	<1	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.7	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	26.8	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	708	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	72	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	16.2	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	2.4	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	2	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	53	epa 200.8
Barium, Dissolved	55	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	2.4	epa 200.8
Chromium, Dissolved	2.1	epa 200.8
Copper, Total	1	epa 200.8
Copper, Dissolved	1	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	241	epa 200.8
Zinc, Dissolved	233	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	6.3	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	6.7	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-2
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised
11/7/2013
DEP USE ONLY
Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number:	OW-3D	<input checked="" type="checkbox"/> Well	<input type="checkbox"/> Spring	<input type="checkbox"/> Stream	<input type="checkbox"/> Other
Location: County	Berks	<input checked="" type="checkbox"/> Upgradient	<input type="checkbox"/> Downgradient		
Sampling Point: Latitude:	40° 19 ' 22.2 "	Municipality: Reading			
Depth to Water Level:	43.31 ft.	Longitude:	75° 56 ' 40.7 "	Measured From: <input type="checkbox"/> Land Surface <input checked="" type="checkbox"/> TOC	
Casing Stickup:	3.50 ft.	Elevation of Water Level:	226.06 ft./MSL	Volume of Water Column: 19.65 gal.	
Sampling Depth:	73.04 ft.	Sample Method:	<input type="checkbox"/> Pumped <input checked="" type="checkbox"/> Bailed <input checked="" type="checkbox"/> Grab	Well Volumes Purged: 3	
Total Well Depth:	200.50 ft.				
Well Purged	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Sample Filtered (must be 0.45 micron)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Spring Flow Rate:			GPM	Sample Collection Time: 1020	
Sample Date: (mm/dd/yy)	10/29/2013				
Sample Collector's Name:	PGB/CKB				
Sample Collector's Affiliation:	MJ Reider				
Laboratory Performing Analysis	MJ Reider	107 Angelica St.	Reading, PA 19611		
Were any holding times exceeded?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, please explain in comments field.			
Lab Certification Number	06-003				
Lab Sample Number:	0761-13-0048632		Final Lab Analysis Completion Date: 11/7/13		
Name/Affiliation of Person who Filled out Form	James C. Best Jr. - MJ Reider Assoc., Inc				
Comments:					
<hr/> <hr/> <hr/>					

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	8.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	180	epa 200.7
Iron (µg/l), Dissolved**	160	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	4	epa 200.8
Manganese (µg/l), Dissolved**	4	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.5	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	1.4	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	505	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	32	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	13.7	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	37.1	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	1.6	sw846 8260
Cis 1, 2-Dichloroethene	<.5	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	<.5	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	128	epa 200.8
Barium, Dissolved	118	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	2	epa 200.8
Chromium, Dissolved	0.6	epa 200.8
Copper, Total	1	epa 200.8
Copper, Dissolved	<1	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	<5	epa 200.8
Zinc, Dissolved	<5	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	2.7	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	2.9	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3D
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised 11/7/2013
DEP USE ONLY
Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S").**

Monitoring Point Number: OW-3S

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 21.9 "

Longitude: 75° 56 ' 70.8 "

Depth to Water Level: 45.92 ft.

Measured From: Land Surface TOC

Casing Stickup: 3.42 ft.

Elevation of Water Level: 223.45 ft./MSL

Sampling Depth: 46.15 ft.

Volume of Water Column: 5.39 gal.

Total Well Depth: 89.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: 3

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Date: (mm/dd/yy) 10/29/2013 Sample Collection Time: 0950

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048631 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments: _____

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	100.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	620	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	8	epa 200.8
Manganese (µg/l), Dissolved**	<1	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.0	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	39.4	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	901	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	40	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.6	SM5310 C
Total Phenolics (µg/l)	48	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	14.5	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	<.5	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	<.5	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	167	epa 200.8
Barium, Dissolved	154	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	76.8	epa 200.8
Chromium, Dissolved	1.6	epa 200.8
Copper, Total	2	epa 200.8
Copper, Dissolved	2	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	<5	epa 200.8
Zinc, Dissolved	<5	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	33.4	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	33.4	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	OW-3S
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised

11/7/2013

DEP USE ONLY

Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: PS-2

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 25.4 "

Longitude: 75° 56 ' 28.7 "

Depth to Water Level: N/A ft.

Measured From: Land Surface TOC

Casing Stickup: 2.74 ft.

Elevation of Water Level: N/A ft./MSL

Sampling Depth: N/A ft.

Volume of Water Column: N/A gal.

Total Well Depth: 380.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: N/A

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Collection Time: 1330

Sample Date: (mm/dd/yy) 10/29/2013

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048633 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments:

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	41.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	<20	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	3	epa 200.8
Manganese (µg/l), Dissolved**	3	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.5	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	12.6	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	757	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	65	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	15.8	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	<.5	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	0.6	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	1.2	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	64	epa 200.8
Barium, Dissolved	62	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	2	epa 200.8
Chromium, Dissolved	2	epa 200.8
Copper, Total	3	epa 200.8
Copper, Dissolved	3	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	7	epa 200.8
Zinc, Dissolved	8	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	1.7	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	4.3	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	4.2	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-2
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised
11/21/2013
DEP USE ONLY
Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: PS-3

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 21 "

Longitude: 75° 56 ' 33 "

Depth to Water Level: N/A ft.

Measured From: Land Surface TOC

Casing Stickup: 0.00 ft.

Elevation of Water Level: N/A ft./MSL

Sampling Depth: N/A ft.

Volume of Water Column: N/A gal.

Total Well Depth: 559.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: N/A

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Date: (mm/dd/yy) 11/11/2013 Sample Collection Time: 0900

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0050579 Final Lab Analysis Completion Date: 11/21/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments:

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	1.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	910	epa 200.7
Iron (µg/l), Dissolved**	400	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	182	epa 200.8
Manganese (µg/l), Dissolved**	179	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.1	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	0.9	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	355	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	64	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	1.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	0.0	10204001X
Temperature Before Sampling, °C	14.3	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	<.5	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	<.5	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	<.5	sw846 8260
Trichloroethene	0.6	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	40	epa 200.8
Barium, Dissolved	38	epa 200.8
Cadmium, Total	0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	0.9	epa 200.8
Chromium, Dissolved	0.7	epa 200.8
Copper, Total	23	epa 200.8
Copper, Dissolved	<1	epa 200.8
Lead, Total	4	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	188	epa 200.8
Zinc, Dissolved	92	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	2.6	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	2.4	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PS-3
Sample Date	11/11/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised
11/7/2013
DEP USE ONLY
Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: PW-4

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 19 "

Longitude: 75° 56 ' 29.7 "

Depth to Water Level: 80.39 ft.

Measured From: Land Surface TOC

Casing Stickup: 0.00 ft.

Elevation of Water Level: 154.58 ft./MSL

Sampling Depth: 80.63 ft.

Volume of Water Column: N/A gal.

Total Well Depth: 297.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: N/A

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Date: (mm/dd/yy) 10/29/2013

Sample Collection Time: 1415

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048635 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments: _____

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	110.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	<20	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	<1	epa 200.8
Manganese (µg/l), Dissolved**	<1	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.6	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	45.4	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1016	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	71	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.6	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	15.6	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	<.5	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	1.1	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	0.6	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	1.4	sw846 8260
Trichloroethene	3.2	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	114	epa 200.8
Barium, Dissolved	112	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	3.4	epa 200.8
Chromium, Dissolved	3.3	epa 200.8
Copper, Total	2	epa 200.8
Copper, Dissolved	1	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	5	epa 200.8
Zinc, Dissolved	7	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	<.5	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	4.7	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	4.7	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-4
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>



Date Prepared/Revised

11/7/2013

DEP USE ONLY

Date Received

FORM 19
MUNICIPAL WASTE LANDFILLS
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258

SECTION A. SITE IDENTIFIER

Applicant/permittee Baldwin Hardware Corporation

Site Name Baldwin Hardware Facility, Reading, PA

Facility ID (as issued by DEP) PAD 002350833

SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")**.

Monitoring Point Number: PW-5

 Well Spring Stream Other

 Upgradient Downgradient

Location: County Berks

Municipality: Reading

Sampling Point: Latitude: 40° 19 ' 20 "

Longitude: 75° 56 ' 29 "

Depth to Water Level: 67.31 ft.

Measured From: Land Surface TOC

Casing Stickup: 0.00 ft.

Elevation of Water Level: 156.80 ft./MSL

Sampling Depth: 68.32 ft.

Volume of Water Column: N/A gal.

Total Well Depth: 197.00 ft.

Sample Method: Pumped Bailed GrabWell Purged Yes No

Well Volumes Purged: N/A

Sample Filtered (must be 0.45 micron)? Yes No

Spring Flow Rate: _____ GPM

Sample Collection Time: 1400

Sample Date: (mm/dd/yy) 10/29/2013

Sample Collector's Name: PGB/CKB

Sample Collector's Affiliation: MJ Reider

Laboratory Performing Analysis MJ Reider 107 Angelica St. Reading, PA 19611

Were any holding times exceeded? Yes No If yes, please explain in comments field.

Lab Certification Number 06-003

Lab Sample Number: 0761-13-0048636 Final Lab Analysis Completion Date: 11/7/13

Name/Affiliation of Person who Filled out Form James C. Best Jr. - MJ Reider Assoc., Inc

Comments: _____

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****ANALYTES****1-Q Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE [†]	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as CaCO ₃)*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	84.00	EPA 300.0
Fluoride		
Iron (µg/l), Total	30	epa 200.7
Iron (µg/l), Dissolved**	<20	epa 200.7
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total	<1	epa 200.8
Manganese (µg/l), Dissolved**	<1	epa 200.8
Nitrate-Nitrogen		
pH (standard units), Field*	7.6	sm4500h-b
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	33.9	epa 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	860	sm 2510b
Specific Conductance (µmhos/cm), Laboratory*		
Sulfate*	49	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	0.5	SM5310 C
Total Phenolics (µg/l)	<10	EPA 420.4
Turbidity (NTU)		
Cyanide	<.004	10204001X
Temperature Before Sampling, °C	13.8	SM 2550B

* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metal analysis.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q Organics (Enter all data in µg/l)

ANALYTE	VALUE†	ANALYSIS METHOD NUMBER
Benzene	<.5	sw846 8260
1, 2-Dibromoethane		
1, 1-Dichloroethane	<.5	sw846 8260
1, 1-Dichloroethene	0.8	sw846 8260
1, 2-Dichloroethane	<.5	sw846 8260
Cis 1, 2-Dichloroethene	14.6	sw846 8260
Trans-1,2-Dichloroethene	<.5	sw846 8260
Ethyl Benzene	<.5	sw846 8260
Methylene chloride	<.5	sw846 8260
Tetrachloroethene	2.8	sw846 8260
Toluene	<.5	sw846 8260
1, 1, 1-Trichloroethane	2	sw846 8260
Trichloroethene	87	sw846 8260
Vinyl chloride	<1	sw846 8260
Xylene	<.5	sw846 8260
2-Chloroethylvinyl Ether	<10	sw846 8260

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

1-A Metals (Enter all data in ug/l) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total	134	epa 200.8
Barium, Dissolved	132	epa 200.8
Cadmium, Total	<0.5	epa 200.8
Cadmium, Dissolved	<0.5	epa 200.8
Chromium, Total	1.5	epa 200.8
Chromium, Dissolved	1.5	epa 200.8
Copper, Total	1	epa 200.8
Copper, Dissolved	2	epa 200.8
Lead, Total	<1	epa 200.8
Lead, Dissolved	<1	EPA 200.8
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total	<0.5	EPA 200.8
Silver, Dissolved	<0.5	epa 200.8
Zinc, Total	9	epa 200.8
Zinc, Dissolved	8	epa 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19

ANNUAL WATER QUALITY ANALYSES

2-A Organics (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)	<2	sw846 8260
Bromomethane (Methyl Bromide)	<1	sw846 8260
Carbon Tetrachloride	<.5	sw846 8260
Chlorobenzene	<.5	sw846 8260
Chloroethane (Ethyl Chloride)	<1	sw846 8260
Dibromochloromethane (Chlorodibromomethane)	<.5	sw846 8260
Methyl Chloride (Chloromethane)	<1	sw846 8260
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)	<.5	sw846 8260
1,3-Dichlorobenzene (m-Dichlorobenzene)	<.5	sw846 8260
1,4-Dichlorobenzene (p-Dichlorobenzene)	<.5	sw846 8260
Dichlorodifluoromethane	<1	sw846 8260
1,2-Dichloropropane (Propylene Dichloride)	<.5	sw846 8260
Cis-1,3-Dichloropropene	<.5	sw846 8260
Trans-1,3-Dichloropropene	<.5	sw846 8260
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane	<.5	sw846 8260
1,1,2-Trichloroethane	<.5	sw846 8260
Trichlorofluoromethane (CFC-11)	<1	sw846 8260
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19**ANNUAL WATER QUALITY ANALYSES**

Subtitle D Detection Zone Add-On List: When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

ORGANICS AND METALS (Enter all data in µg/l)

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)	<.5	sw846 8260
Carbon Disulfide		
Chloroform (Trichloromethane)	0.7	sw846 8260
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene Bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total	6.3	EPA 200.8
Thallium, Total		
Vanadium, Total		
Nickel, Dissolved	9	EPA 200.8

† Please indicate detection limit if analyte is not detected.

I.D. No.	PAD 002350833
Monitoring Point No.	PW-5
Sample Date	10/29/2013

FORM 19
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

4 Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>

Appendix C
*M.J. Reider Associates 2013 Performance
Evaluation (PE) Results*



A Waters Company

Karen E. O'Brien
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999

WP-222



Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 07/15/13

Close Date: 08/29/13

Report Issued Date: 09/03/13



A Waters Company

September 3, 2013

Karen E. O'Brien
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999

Enclosed is your final report for ERA's WP-222 WatR™ Pollution Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's WP-222 WatR™ Pollution Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the current TNI Fields of Proficiency Testing (FoPT) tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the current TNI FoPT tables. If the analyte is not included in the TNI FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™ Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have many years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be useful in helping you work through your technical issues.

Please note the following changes to our final reports:

- At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than "0." In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.
- Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA's WP-222 WatR™ Pollution Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristina Sanchez".

Kristina Sanchez
Quality Officer

attachments



A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
ACIL	Marlene Moore / 302-368-1211	All Analytes	2009 TNI
New Jersey	Rachel Ellis / 609-777-1749	All Analytes	2009 TNI
New York	Dan Dickinson / 518-485-5570	All Analytes	2003 NELAC
Pennsylvania	Aaren Alger / 717-346-8212	All Analytes	2009 TNI

WP-222 Definitions & Study Discussion

Study Dates: 07/15/13 - 08/29/13

Report Issued: 09/03/13

WP Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are compliant with the most current TNI Fields of Proficiency Testing (FoPT) tables. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2009 TNI Standards. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards.

The Acceptance Limits are established per the criteria contained in the most current USEPA/NELAC FoPT tables, or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable = Reported Value falls within the Acceptance Limits.

Not Acceptable = Reported Value falls outside the Acceptance Limits.

No Evaluation = Reported Value cannot be evaluated.

Not Reported = No Value reported.

The Method Description is the method the laboratory reported to ERA.

WP Study Discussion

ERA's WP-222 WatR™ Pollution Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WP-222 WatR™ Pollution study standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes met the acceptance criteria contained in the 2009 TNI PT Standard and the criteria contained in the most current TNI FoPT tables.

The data submitted by participating laboratories was also examined for study anomalies. There was one anomaly observed during the statistical review of the data. If your laboratory received the WP-222 Hardness sample, catalog #580, this anomaly is addressed on the following page.

ERA's WP-222 WatR™ Pollution study reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's WatR™ Pollution Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.



A Waters Company

WP-222 Study Anomalies

Study Dates: 07/15/13 - 08/29/13

Report Issued: 09/03/13

Study Discussion Hardness - Total Suspended Solids

During the statistical review of the WP-222 Hardness sample, catalog #580, ERA noted a high failure rate and a low bias for Total Suspended Solids. ERA verified that the manufacturing data was correct and met all verification and homogeneity criteria. Upon further investigation, ERA determined that the elevated failure rate is due to the new regression equation criteria contained in the July 1, 2013, TNI FoPT Table. The acceptance limits using the current equation calculate to 78.8 - 93.8 mg/L (91.3% - 109%), however, in accordance with footnotes 5 and 6 in the most current TNI FoPT Table, the lower acceptance limit is set to 90.0% of the assigned value & the upper acceptance limit is set to 110% of the assigned value, resulting in acceptance limits of 77.7 – 94.9 mg/L and a failure rate of 33.8%. The acceptance limits calculated using the regression equation from the October 3, 2011, TNI FoPT Table would be 70.8 – 95.8 mg/L (82.0% - 111%), resulting in a failure rate of 10.6%. ERA will communicate these findings to the TNI FoPT committee.





A Waters Company

WP-222 Laboratory Exception Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

2009 TNI Evaluation Checks

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WP Base/Neutrals (cat# 833)							
6070	Diethylphthalate	µg/L	< 10.0	72.2	12.3 - 103	Not Acceptable	EPA 625

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WP Oil & Grease Concentrate (cat# 4120)							
1860	n-Hexane Extractable Material(O&G)(Grav)	mg/L	73	107	76.4 - 124	Not Acceptable	EPA 1664A 1999
WP Base/Neutrals (cat# 833)							
5630	Benzyl alcohol	µg/L	19.0	< 10.0	0.00 - 10.0	Not Acceptable	EPA 625
6070	Diethylphthalate	µg/L	< 10.0	72.2	12.3 - 103	Not Acceptable	EPA 625



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 1 of 1





Final Report Results For Laboratory

M J Reider Associates



2009 TNI Evaluation Report

Study: WP-222

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Inorganic Results





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Minerals (cat# 581)

1505	Alkalinity as CaCO ₃	mg/L	60	61.0	48.8 - 73.2	Acceptable	SM2320B 20th ED 1997	8/1/2013	-0.25	60.7	2.85	MXB
1575	Chloride	mg/L	44.6	47.5	41.1 - 54.0	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-1.15	46.8	1.90	JAE
1610	Conductivity at 25°C	µmhos/cm	382	376	338 - 414	Acceptable	SM2510B 20th ED 1997	7/26/2013	-0.0789	383	9.24	EMW
1730	Fluoride	mg/L	2.80	2.97	2.39 - 3.43	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.499	2.88	0.169	JAE
1125	Potassium	mg/L	35.8	36.1	28.9 - 43.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	0.468	34.9	1.97	LNA
1155	Sodium	mg/L	54.9	57.2	45.8 - 68.6	Acceptable	EPA 200.7 4.4 1994	8/2/2013	-0.713	57.3	3.34	LNA
2000	Sulfate	mg/L	33.7	36.9	30.0 - 42.5	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-1.15	35.8	1.84	JAE
1955	Total Dissolved Solids at 180°C	mg/L		282	237 - 327	Not Reported				277	16.9	
1950	Total Solids at 105°C	mg/L		291	246 - 336	Not Reported				288	14.4	

WP Minerals (cat# 581)

1505	Alkalinity as CaCO ₃	mg/L		61.0	48.8 - 73.2	Not Reported				60.7	2.85	
1575	Chloride	mg/L		47.5	41.1 - 54.0	Not Reported				46.8	1.90	
1610	Conductivity at 25°C	µmhos/cm		376	338 - 414	Not Reported				383	9.24	
1730	Fluoride	mg/L	2.80	2.97	2.39 - 3.43	Acceptable	SM4500F- C 20th ED 1997	8/6/2013	-0.499	2.88	0.169	ALD
1125	Potassium	mg/L		36.1	28.9 - 43.3	Not Reported				34.9	1.97	
1155	Sodium	mg/L		57.2	45.8 - 68.6	Not Reported				57.3	3.34	
2000	Sulfate	mg/L		36.9	30.0 - 42.5	Not Reported				35.8	1.84	
1955	Total Dissolved Solids at 180°C	mg/L		282	237 - 327	Not Reported				277	16.9	
1950	Total Solids at 105°C	mg/L		291	246 - 336	Not Reported				288	14.4	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 3 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Hardness (cat# 580)

1960	Total Suspended Solids	mg/L		86.3	77.7 - 94.9	Not Reported				79.9	5.21	
1035	Calcium	mg/L	46.1	45.5	38.7 - 52.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	1.04	44.3	1.70	LNA
1085	Magnesium	mg/L	13.4	14.2	12.1 - 16.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	-0.612	13.8	0.647	LNA
1550	Calcium Hardness as CaCO ₃	mg/L	115	114	96.9 - 131	Acceptable	EPA 200.7 4.4 1994	8/2/2013	1.11	110	4.27	LNA
1755	Total Hardness as CaCO ₃	mg/L	170	172	146 - 198	Acceptable	EPA 200.7 4.4 1994	8/2/2013	0.526	167	5.76	LNA

WP Hardness (cat# 580)

1960	Total Suspended Solids	mg/L		86.3	77.7 - 94.9	Not Reported				79.9	5.21	
1035	Calcium	mg/L		45.5	38.7 - 52.3	Not Reported				44.3	1.70	
1085	Magnesium	mg/L		14.2	12.1 - 16.3	Not Reported				13.8	0.647	
1550	Calcium Hardness as CaCO ₃	mg/L	109	114	96.9 - 131	Acceptable	SM3500Ca B 20th ED 1997	8/15/2013	-0.297	110	4.27	ALD
1755	Total Hardness as CaCO ₃	mg/L	164	172	146 - 198	Acceptable	SM2340C 20th ED 1997	8/15/2013	-0.515	167	5.76	ALD

WP pH (cat# 577)

1900	pH	S.U.	5.60	5.57	5.37 - 5.77	Acceptable	SM4500H+ B 20th ED 1996	7/25/2013	-0.516	5.62	0.0466	EMW
------	----	------	------	------	-------------	------------	-------------------------	-----------	--------	------	--------	-----

WP Settleable Solids (cat# 883)

1965	Settleable Solids	mL/L	34.0	31.1	25.5 - 39.4	Acceptable	SM2540F 20th ED 1997	7/26/2013	0.943	31.8	2.37	EMW
------	-------------------	------	------	------	-------------	------------	----------------------	-----------	-------	------	------	-----

WP Volatile Solids (cat# 884)

1970	Volatile Solids, Total	mg/L	299	342	262 - 388	Acceptable	EPA 160.4 1971	8/7/2013	-2.01	332	16.7	RDD
------	------------------------	------	-----	-----	-----------	------------	----------------	----------	-------	-----	------	-----

WP Solids (cat# 241)

1960	Total Suspended Solids	mg/L	51	56.0	48.5 - 63.5	Acceptable	SM2540D 20th ED 1997	7/23/2013	-0.0582	51.1	2.58	RDD
1955	Total Dissolved Solids at 180°C	mg/L	363	366	321 - 411	Acceptable	SM2540C 20th ED 1997	7/23/2013	0.728	356	9.11	RDD
1950	Total Solids at 105°C	mg/L	403	427	382 - 472	Acceptable	SM2540B 20th ED 1997	7/23/2013	-0.508	419	30.8	RDD



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 4 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Simple Nutrients (cat# 584)

1515	Ammonia as N	mg/L	15.8	15.4	12.4 - 18.3	Acceptable	ASTM D6919-03 2003	8/2/2013	0.358	15.4	1.09	JCL
1820	Nitrate + Nitrite as N	mg/L	15.1	15.1	12.6 - 17.4	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.0148	15.1	0.935	JAE
1810	Nitrate as N	mg/L	15.1	15.1	12.6 - 17.5	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.00355	15.1	0.965	JAE
1870	ortho-Phosphate as P	mg/L	3.24	3.36	2.86 - 3.86	Acceptable	SM4500P E 20th ED 1997	8/1/2013	-0.664	3.36	0.187	ALD

WP Simple Nutrients (cat# 584)

1515	Ammonia as N	mg/L	14.3	15.4	12.4 - 18.3	Acceptable	EPA 350.1 2 1993	8/2/2013	-1.02	15.4	1.09	JCL
1820	Nitrate + Nitrite as N	mg/L	15.6	15.1	12.6 - 17.4	Acceptable	EPA 353.2 2 1993	7/24/2013	0.520	15.1	0.935	JCL
1810	Nitrate as N	mg/L	15.6	15.1	12.6 - 17.5	Acceptable	EPA 353.2 2 1993	7/24/2013	0.515	15.1	0.965	JCL
1870	ortho-Phosphate as P	mg/L	3.39	3.36	2.86 - 3.86	Acceptable	SM4500P F 20th ED 1997	8/1/2013	0.136	3.36	0.187	JCL

WP Complex Nutrients (cat# 579)

1795	Total Kjeldahl Nitrogen	mg/L	18.3	18.5	13.8 - 22.5	Acceptable	EPA 351.2 2 1993	7/23/2013	-0.02	18.3	1.28	JCL
1910	Total phosphorus as P	mg/L	6.23	6.69	5.56 - 7.74	Acceptable	SM4500P E 20th ED 1997	8/1/2013	-1.13	6.67	0.392	ALD

WP Complex Nutrients (cat# 579)

1795	Total Kjeldahl Nitrogen	mg/L		18.5	13.8 - 22.5	Not Reported				18.3	1.28	
1910	Total phosphorus as P	mg/L	6.33	6.69	5.56 - 7.74	Acceptable	SM4500P F 20th ED 1997	8/2/2013	-0.874	6.67	0.392	JCL

WP Nitrite (cat# 888)

1840	Nitrite as N	mg/L	0.930	0.954	0.770 - 1.14	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.494	0.956	0.0524	JAE
------	--------------	------	-------	-------	--------------	------------	--------------------	-----------	--------	-------	--------	-----

WP Nitrite (cat# 888)

1840	Nitrite as N	mg/L	0.958	0.954	0.770 - 1.14	Acceptable	EPA 353.2 2 1993	7/24/2013	0.0412	0.956	0.0524	JCL
------	--------------	------	-------	-------	--------------	------------	------------------	-----------	--------	-------	--------	-----





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Demand (cat# 578)

1530	BOD	mg/L	122	122	66.0 - 179	Acceptable	SM5210B 20th ED 1997	8/15/2013	-0.0571	123	18.7	EMW
1555	CBOD	mg/L	119	111	51.9 - 170	Acceptable	SM5210B 20th ED 1997	8/15/2013	0.236	114	22.6	EMW
1565	COD	mg/L	207	199	161 - 230	Acceptable	HACH 8000	8/23/2013	0.686	199	11.9	TMH
2040	TOC	mg/L	80.5	78.7	66.0 - 90.5	Acceptable	SM5310C 20th ED 1996	7/31/2013	0.412	78.6	4.55	ALD

WP Oil & Grease Concentrate (cat# 4120)

1860	n-Hexane Extractable Material(O&G)(Grav)	mg/L	73	107	76.4 - 124	Not Acceptable	EPA 1664A 1999	8/5/2013	-4.78	98.5	5.33	WXC
------	--	------	----	-----	------------	----------------	----------------	----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 6 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L	432	420	329 - 515	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.0107	432	21.8	LNA
1005	Antimony	µg/L	413	429	343 - 501	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.15	416	20.1	LNA
1010	Arsenic	µg/L	334	342	282 - 399	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.0707	333	14.3	LNA
1015	Barium	µg/L	685	702	597 - 807	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.503	698	25.2	LNA
1020	Beryllium	µg/L	206	203	172 - 233	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.676	200	8.74	LNA
1025	Boron	µg/L	823	837	711 - 963	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.435	845	50.7	LNA
1030	Cadmium	µg/L	206	203	173 - 233	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.694	199	9.46	LNA
1040	Chromium	µg/L	232	229	195 - 263	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.448	228	8.98	LNA
1050	Cobalt	µg/L	445	409	348 - 470	Acceptable	EPA 200.7 4.4 1994	7/22/2013	1.09	426	17.7	LNA
1055	Copper	µg/L	487	490	416 - 564	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.273	493	20.8	LNA
1070	Iron	µg/L	890	836	711 - 961	Acceptable	EPA 200.7 4.4 1994	7/31/2013	1.21	847	35.5	LNA
1075	Lead	µg/L	738	741	630 - 852	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.153	743	30.8	LNA
1090	Manganese	µg/L	503	483	411 - 555	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.432	495	17.6	LNA
1100	Molybdenum	µg/L	277	273	233 - 310	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.573	271	11.1	LNA
1105	Nickel	µg/L	349	360	311 - 413	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.601	357	14.1	LNA
1140	Selenium	µg/L	607	638	542 - 734	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.544	625	32.5	LNA
1150	Silver	µg/L	572	572	486 - 658	Acceptable	EPA 200.7 4.4 1994	8/1/2013	0.112	569	25.0	LNA
1160	Strontium	µg/L	333	338	287 - 389	Acceptable	EPA 200.7 4.4 1994	8/12/2013	-0.464	339	12.5	LNA
1165	Thallium	µg/L	337	342	277 - 401	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.244	341	16.4	LNA
1185	Vanadium	µg/L	204	211	179 - 243	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.432	207	6.85	LNA



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 7 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L	1680	1690	1440 - 1940	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.148	1670	78.2	LNA
------	------	------	------	------	-------------	------------	--------------------	-----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 8 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L	452	420	329 - 515	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.926	432	21.8	RLS
1005	Antimony	µg/L	443	429	343 - 501	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.34	416	20.1	RLS
1010	Arsenic	µg/L	348	342	282 - 399	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.05	333	14.3	RLS
1015	Barium	µg/L	677	702	597 - 807	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.821	698	25.2	RLS
1020	Beryllium	µg/L	215	203	172 - 233	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.70	200	8.74	RLS
1025	Boron	µg/L		837	711 - 963	Not Reported				845	50.7	
1030	Cadmium	µg/L	198	203	173 - 233	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.152	199	9.46	RLS
1040	Chromium	µg/L	236	229	195 - 263	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.894	228	8.98	RLS
1050	Cobalt	µg/L	437	409	348 - 470	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.634	426	17.7	RLS
1055	Copper	µg/L	490	490	416 - 564	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.129	493	20.8	RLS
1070	Iron	µg/L		836	711 - 961	Not Reported				847	35.5	
1075	Lead	µg/L	722	741	630 - 852	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.671	743	30.8	RLS
1090	Manganese	µg/L	521	483	411 - 555	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.45	495	17.6	RLS
1100	Molybdenum	µg/L	285	273	233 - 310	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.29	271	11.1	RLS
1105	Nickel	µg/L	371	360	311 - 413	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.961	357	14.1	RLS
1140	Selenium	µg/L	649	638	542 - 734	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.750	625	32.5	RLS
1150	Silver	µg/L	567	572	486 - 658	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.0872	569	25.0	RLS
1160	Strontium	µg/L		338	287 - 389	Not Reported				339	12.5	
1165	Thallium	µg/L	322	342	277 - 401	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-1.16	341	16.4	RLS
1185	Vanadium	µg/L	223	211	179 - 243	Acceptable	EPA 200.8 5.4 1994	7/31/2013	2.34	207	6.85	RLS



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 9 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L	1860	1690	1440 - 1940	Acceptable	EPA 200.8 5.4 1994	7/31/2013	2.45	1670	78.2	RLS
------	------	------	------	------	-------------	------------	--------------------	-----------	------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 10 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L		420	329 - 515	Not Reported				432	21.8	
1005	Antimony	µg/L	442	429	343 - 501	Acceptable	EPA 200.9 2.2 1994	8/1/2013	1.30	416	20.1	RLS
1010	Arsenic	µg/L	355	342	282 - 399	Acceptable	EPA 200.9 2.2 1994	8/9/2013	1.54	333	14.3	RLS
1015	Barium	µg/L		702	597 - 807	Not Reported				698	25.2	
1020	Beryllium	µg/L		203	172 - 233	Not Reported				200	8.74	
1025	Boron	µg/L		837	711 - 963	Not Reported				845	50.7	
1030	Cadmium	µg/L		203	173 - 233	Not Reported				199	9.46	
1040	Chromium	µg/L		229	195 - 263	Not Reported				228	8.98	
1050	Cobalt	µg/L		409	348 - 470	Not Reported				426	17.7	
1055	Copper	µg/L		490	416 - 564	Not Reported				493	20.8	
1070	Iron	µg/L		836	711 - 961	Not Reported				847	35.5	
1075	Lead	µg/L	762	741	630 - 852	Acceptable	EPA 200.9 2.2 1994	8/2/2013	0.626	743	30.8	RLS
1090	Manganese	µg/L		483	411 - 555	Not Reported				495	17.6	
1100	Molybdenum	µg/L		273	233 - 310	Not Reported				271	11.1	
1105	Nickel	µg/L		360	311 - 413	Not Reported				357	14.1	
1140	Selenium	µg/L	643	638	542 - 734	Acceptable	EPA 200.9 2.2 1994	8/2/2013	0.565	625	32.5	RLS
1150	Silver	µg/L		572	486 - 658	Not Reported				569	25.0	
1160	Strontium	µg/L		338	287 - 389	Not Reported				339	12.5	
1165	Thallium	µg/L		342	277 - 401	Not Reported				341	16.4	
1185	Vanadium	µg/L		211	179 - 243	Not Reported				207	6.85	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 11 of 26





WP-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L		1690	1440 - 1940	Not Reported				1670	78.2	
------	------	------	--	------	-------------	--------------	--	--	--	------	------	--

WP Mercury (cat# 574)

1095	Mercury	µg/L	6.85	5.52	3.86 - 7.18	Acceptable	EPA 245.1 3 1994	8/2/2013	2.25	5.44	0.625	JXS
------	---------	------	------	------	-------------	------------	------------------	----------	------	------	-------	-----

WP Hexavalent Chromium (cat# 898)

1045	Hexavalent Chromium	µg/L	158	170	139 - 200	Acceptable	EPA 218.6 3.3 1994	8/6/2013	-0.917	167	10.2	MXB
------	---------------------	------	-----	-----	-----------	------------	--------------------	----------	--------	-----	------	-----

WP Hexavalent Chromium (cat# 898)

1045	Hexavalent Chromium	µg/L	154	170	139 - 200	Acceptable	SM3500Cr B 20th ED 1997	8/21/2013	-1.31	167	10.2	JCL
------	---------------------	------	-----	-----	-----------	------------	-------------------------	-----------	-------	-----	------	-----

WP Tin & Titanium (cat# 573)

1175	Tin	µg/L	1200	1240	868 - 1610	Acceptable	EPA 200.7 4.4 1994	8/1/2013	-0.321	1220	61.1	LNA
1180	Titanium	µg/L	260	264	224 - 304	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.119	261	9.58	LNA

WP Color (cat# 882)

1605	Color	PC units	60	50.0	35.2 - 60.8	Acceptable	SM2120B 20th ED 1993	7/23/2013	3.16	46.6	4.22	JXS
------	-------	----------	----	------	-------------	------------	----------------------	-----------	------	------	------	-----

WP Turbidity (cat# 893)

2055	Turbidity	NTU	6.15	6.58	5.16 - 7.98	Acceptable	EPA 180.1 2 1993	7/31/2013	-0.616	6.40	0.405	MXB
------	-----------	-----	------	------	-------------	------------	------------------	-----------	--------	------	-------	-----

WP Total Cyanide (cat# 588)

1645	Cyanide, total	mg/L	0.439	0.444	0.289 - 0.599	Acceptable	Lachat 10204001X	8/13/2013	0.127	0.434	0.0353	JCL
1510	Amenable Cyanide	mg/L		0.278	0.181 - 0.375	Not Reported				0.277	0.0546	

WP Total Phenolics (4-AAP) (cat# 589)

1905	Phenolics, total	mg/L	1.03	0.896	0.448 - 1.34	Acceptable	EPA 420.4 1 1993	7/29/2013	0.360	0.962	0.189	JCL
------	------------------	------	------	-------	--------------	------------	------------------	-----------	-------	-------	-------	-----

WP Silica (cat# 890)

1990	Silica as SiO ₂	mg/L	96.5	93.2	69.9 - 116	Acceptable	EPA 200.7 4.4 1994	8/12/2013	0.698	92.4	5.86	LNA
------	----------------------------	------	------	------	------------	------------	--------------------	-----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 12 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Silica (cat# 890)

1990	Silica as SiO ₂	mg/L	89.7	93.2	69.9 - 116	Acceptable	SM4500SiO ₂ C 20th ED 1997	8/2/2013	-0.462	92.4	5.86	ALD
------	----------------------------	------	------	------	------------	------------	---------------------------------------	----------	--------	------	------	-----

WP Sulfide (cat# 891)

2005	Sulfide	mg/L	3.76	4.79	1.92 - 7.07	Acceptable	SM4500S2- F 20th ED 1997	8/7/2013	-0.713	4.36	0.848	JAE
------	---------	------	------	------	-------------	------------	--------------------------	----------	--------	------	-------	-----

WP Surfactants - MBAS (cat# 892)

2025	Surfactants (MBAS)	mg/L	0.466	0.397	0.235 - 0.579	Acceptable	SM5540C 20th ED 1993	8/6/2013	0.732	0.417	0.0663	WXC
------	--------------------	------	-------	-------	---------------	------------	----------------------	----------	-------	-------	--------	-----

WP Acidity (cat# 885)

1500	Acidity as CaCO ₃	mg/L	1320	1210	1090 - 1330	Acceptable	SM2310B 20th ED 1997	7/24/2013	3.91	1190	33.2	MXB
------	------------------------------	------	------	------	-------------	------------	----------------------	-----------	------	------	------	-----

WP Bromide (cat# 887)

1540	Bromide	mg/L	5.53	5.68	4.73 - 6.64	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.889	5.82	0.332	JAE
------	---------	------	------	------	-------------	------------	--------------------	-----------	--------	------	-------	-----

WP Total Residual Chlorine (cat# 587)

1940	Total Residual Chlorine	mg/L	1.85	1.70	1.26 - 2.00	Acceptable	SM4500Cl G 20th ED 1993	8/2/2013	1.41	1.67	0.130	BAR
------	-------------------------	------	------	------	-------------	------------	-------------------------	----------	------	------	-------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com



2009 TNI Evaluation Report

Study: WP-222

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Organic Results





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830)

4315	Acetone	µg/L	< 3.90	< 3.90	0.00 - 3.90	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4320	Acetonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4325	Acrolein	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4375	Benzene	µg/L	32.5	30.5	21.4 - 39.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	1.05	29.5	2.90	GXF
4395	Bromodichloromethane	µg/L	48.7	51.4	30.8 - 72.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.419	46.8	4.41	GXF
4400	Bromoform	µg/L	39.9	39.0	23.4 - 54.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0768	40.2	4.38	GXF
4950	Bromomethane	µg/L	25.1	29.8	11.9 - 47.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0505	25.5	7.64	GXF
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.4	46.0	30.4 - 63.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.458	46.1	5.09	GXF
4450	Carbon disulfide	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4455	Carbon tetrachloride	µg/L	20.6	20.2	10.7 - 28.1	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.515	19.4	2.37	GXF
4475	Chlorobenzene	µg/L	17.6	17.6	12.3 - 22.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.472	16.9	1.51	GXF
4575	Chlorodibromomethane	µg/L	69.4	72.5	43.5 - 102	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.563	73.9	7.96	GXF
4485	Chloroethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4505	Chloroform	µg/L	55.8	56.0	39.2 - 72.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0736	56.2	6.14	GXF
4960	Chloromethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 15 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L	< 9.00	< 9.00	0.00 - 9.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4585	1,2-Dibromoethane (EDB)	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4595	Dibromomethane	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4610	1,2-Dichlorobenzene	µg/L	17.6	17.6	12.3 - 22.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.281	17.2	1.36	GXF
4615	1,3-Dichlorobenzene	µg/L	46.4	45.3	31.7 - 58.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.368	44.8	4.27	GXF
4620	1,4-Dichlorobenzene	µg/L	14.0	13.6	9.52 - 17.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.308	13.6	1.25	GXF
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4630	1,1-Dichloroethane	µg/L	15.6	15.9	10.2 - 22.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.319	15.0	1.97	GXF
4635	1,2-Dichloroethane	µg/L	23.3	22.3	15.8 - 30.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.449	22.3	2.18	GXF
4640	1,1-Dichloroethylene	µg/L	45.4	43.4	25.2 - 63.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.018	45.5	6.17	GXF
4645	cis-1,2-Dichloroethylene	µg/L	25.2	23.9	16.3 - 32.1	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.540	23.7	2.74	GXF
4700	trans-1,2-Dichloroethylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4655	1,2-Dichloropropane	µg/L	24.9	24.6	17.2 - 32.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.433	23.9	2.31	GXF
4680	cis-1,3-Dichloropropylene	µg/L	21.2	21.9	14.2 - 29.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.390	20.2	2.65	GXF
4685	trans-1,3-Dichloropropylene	µg/L	61.2	71.0	46.2 - 95.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.683	67.8	9.70	GXF
4765	Ethylbenzene	µg/L	14.0	13.2	9.24 - 17.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.791	13.0	1.21	GXF
4835	Hexachlorobutadiene	µg/L	< 4.30	< 4.30	0.00 - 4.30	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4860	2-Hexanone	µg/L	< 4.40	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 16 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

4975	Methylene chloride	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4995	4-Methyl-2-pentanone (MIBK)	µg/L	24.8	28.3	6.85 - 47.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.652	27.4	3.92	GXF
5005	Naphthalene	µg/L	14.9	15.7	6.67 - 23.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.076	15.0	1.62	GXF
5100	Styrene	µg/L	42.7	46.2	30.0 - 62.4	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.471	44.7	4.23	GXF
5105	1,1,1,2-Tetrachloroethane	µg/L	< 9.80	< 9.80	0.00 - 9.80	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5110	1,1,2,2-Tetrachloroethane	µg/L	17.0	16.9	11.0 - 22.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.0575	16.9	1.82	GXF
5115	Tetrachloroethylene	µg/L	46.2	48.7	26.9 - 63.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.06	46.6	6.30	GXF
5140	Toluene	µg/L	48.1	44.8	31.4 - 58.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.859	44.5	4.18	GXF
5155	1,2,4-Trichlorobenzene	µg/L	46.2	51.5	21.6 - 70.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.472	49.4	6.72	GXF
5160	1,1,1-Trichloroethane	µg/L	31.0	32.5	19.5 - 45.5	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.123	31.4	3.66	GXF
5165	1,1,2-Trichloroethane	µg/L	45.8	45.4	31.8 - 59.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.0478	45.6	4.15	GXF
5170	Trichloroethylene	µg/L	23.8	23.7	14.9 - 31.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.379	22.9	2.25	GXF
5175	Trichlorofluoromethane	µg/L	41.6	36.7	14.7 - 58.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.524	37.6	7.52	GXF
5180	1,2,3-Trichloropropane (TCP)	µg/L	< 4.10	< 4.10	0.00 - 4.10	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5210	1,2,4-Trimethylbenzene	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5215	1,3,5-Trimethylbenzene	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5235	Vinyl chloride	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 17 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

5240	m&p-Xylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5250	o-Xylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5260	Xylenes, total	µg/L	< 12.0	< 12.0	0.00 - 12.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 18 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Chlorinated Acid Herbicides (cat# 829)

8505	Acifluorfen	µg/L		6.40	0.896 - 9.42	Not Reported				6.31	2.14	
8530	Bentazon	µg/L		2.46	0.246 - 4.47	Not Reported				2.54	0.791	
8540	Chloramben	µg/L		2.54	0.254 - 3.87	Not Reported				2.04	0.371	
8545	2,4-D	µg/L	2.13	2.16	0.216 - 3.59	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.619	1.84	0.466	RPB
8560	2,4-DB	µg/L	2.90	3.86	0.386 - 6.56	Acceptable	SM6640B 20th ED 1994	7/25/2013	-0.437	3.29	0.902	RPB
8550	Dacthal diacid (DCPA)	µg/L		3.28	0.414 - 4.68	Not Reported				2.63	0.418	
8555	Dalapon	µg/L	4.24	3.68	0.368 - 5.81	Acceptable	SM6640B 20th ED 1994	7/25/2013	1.64	2.89	0.824	RPB
8595	Dicamba	µg/L	2.36	2.58	0.509 - 4.10	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.538	2.08	0.524	RPB
8600	3,5-Dichlorobenzoic acid	µg/L		2.60	0.546 - 3.92	Not Reported				2.05	0.638	
8605	Dichlorprop	µg/L	4.28	3.18	0.544 - 4.78	Acceptable	SM6640B 20th ED 1994	7/25/2013	1.95	2.84	0.738	RPB
8620	Dinoseb	µg/L	1.04	2.38	0.238 - 3.59	Acceptable	SM6640B 20th ED 1994	7/25/2013	-1.57	1.60	0.353	RPB
7775	MCPCA	µg/L		< 10.0	0.00 - 10.0	Not Reported						
7780	MCPP	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6500	4-Nitrophenol	µg/L		2.52	0.252 - 3.87	Not Reported				1.49	0.659	
6605	Pentachlorophenol	µg/L		2.37	0.305 - 3.58	Not Reported				1.98	0.399	
8645	Picloram	µg/L		2.86	0.286 - 4.63	Not Reported				2.40	0.450	
8655	2,4,5-T	µg/L	4.61	5.04	1.03 - 7.44	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.475	4.08	1.12	RPB
8650	2,4,5-TP (Silvex)	µg/L	1.87	2.03	0.542 - 3.15	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.314	1.76	0.335	RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 19 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP PCBs in Water (cat# 832S)

8880	Aroclor 1016	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8885	Aroclor 1221	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8890	Aroclor 1232	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8895	Aroclor 1242	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8900	Aroclor 1248	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8905	Aroclor 1254	µg/L	6.04	5.34	1.98 - 7.30	Acceptable	EPA 608	7/25/2013	0.989	4.87	1.18	RPB
8910	Aroclor 1260	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 20 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833)

5500	Acenaphthene	µg/L	14.9	18.4	6.88 - 23.3	Acceptable	EPA 625	8/23/2013	0.146	14.5	2.82	MEB
5505	Acenaphthylene	µg/L	< 10.0	< 2.90	0.00 - 2.90	Acceptable	EPA 625	8/23/2013				MEB
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5555	Anthracene	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625	8/23/2013				MEB
5595	Benzidine	µg/L	< 20.0	< 200	0.00 - 200	Acceptable	EPA 625	8/23/2013				MEB
5575	Benzo(a)anthracene	µg/L	67.0	72.1	34.0 - 88.0	Acceptable	EPA 625	8/23/2013	0.634	61.8	8.26	MEB
5585	Benzo(b)fluoranthene	µg/L	21.6	20.4	7.66 - 26.6	Acceptable	EPA 625	8/23/2013	1.65	16.6	3.00	MEB
5600	Benzo(k)fluoranthene	µg/L	< 10.0	< 7.70	0.00 - 7.70	Acceptable	EPA 625	8/23/2013				MEB
5590	Benzo(g,h,i)perylene	µg/L	< 10.0	< 5.10	0.00 - 5.10	Acceptable	EPA 625	8/23/2013				MEB
5580	Benzo(a)pyrene	µg/L	19.3	24.3	7.76 - 32.0	Acceptable	EPA 625	8/23/2013	0.312	18.2	3.66	MEB
5630	Benzyl alcohol	µg/L	19.0	< 10.0	0.00 - 10.0	Not Acceptable	EPA 625	8/23/2013				MEB
5660	4-Bromophenyl-phenylether	µg/L	< 10.0	< 8.60	0.00 - 8.60	Acceptable	EPA 625	8/23/2013				MEB
5670	Butylbenzylphthalate	µg/L	79.3	186	56.5 - 255	Acceptable	EPA 625	8/23/2013	-2.44	158	32.4	MEB
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5760	bis(2-Chloroethoxy)methane	µg/L	24.2	32.4	8.88 - 41.4	Acceptable	EPA 625	8/23/2013	-0.0503	24.4	3.93	MEB
5765	bis(2-Chloroethyl)ether	µg/L	16.6	22.8	6.63 - 30.4	Acceptable	EPA 625	8/23/2013	-0.293	17.7	3.84	MEB
5780	bis(2-Chloroisopropyl)ether	µg/L	24.8	33.8	4.40 - 48.2	Acceptable	EPA 625	8/23/2013	-0.27	26.4	5.86	MEB
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 21 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833) (Continued)

5795	2-Chloronaphthalene	µg/L	23.8	32.2	9.56 - 41.1	Acceptable	EPA 625	8/23/2013	-0.0171	23.9	5.55	MEB
5825	4-Chlorophenyl-phenylether	µg/L	104	146	53.0 - 178	Acceptable	EPA 625	8/23/2013	-0.682	119	22.1	MEB
5855	Chrysene	µg/L	< 10.0	< 5.80	0.00 - 5.80	Acceptable	EPA 625	8/23/2013				MEB
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 625	8/23/2013				MEB
5905	Dibenzofuran	µg/L	33.7	41.8	15.9 - 51.4	Acceptable	EPA 625	8/23/2013	0.259	32.4	5.06	MEB
5925	Di-n-butylphthalate	µg/L	64.2	130	45.7 - 167	Acceptable	EPA 625	8/23/2013	-2.13	112	22.5	MEB
4610	1,2-Dichlorobenzene	µg/L	86.5	194	29.3 - 219	Acceptable	EPA 625	8/23/2013	-0.631	114	43.2	MEB
4615	1,3-Dichlorobenzene	µg/L	44.4	87.5	8.75 - 103	Acceptable	EPA 625	8/23/2013	-0.354	51.4	19.9	MEB
4620	1,4-Dichlorobenzene	µg/L	< 10.0	< 3.70	0.00 - 3.70	Acceptable	EPA 625	8/23/2013				MEB
5945	3,3'-Dichlorobenzidine	µg/L	< 20.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625	8/23/2013				MEB
6070	Diethylphthalate	µg/L	< 10.0	72.2	12.3 - 103	Not Acceptable	EPA 625	8/23/2013		60.3	9.93	MEB
6135	Dimethylphthalate	µg/L	< 10.0	< 11.5	0.00 - 11.5	Acceptable	EPA 625	8/23/2013				MEB
6185	2,4-Dinitrotoluene	µg/L	88.6	95.4	39.7 - 118	Acceptable	EPA 625	8/23/2013	0.601	81.1	12.4	MEB
6190	2,6-Dinitrotoluene	µg/L	28.6	30.3	12.3 - 37.1	Acceptable	EPA 625	8/23/2013	0.979	24.1	4.54	MEB
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625	8/23/2013				MEB
6065	bis(2-Ethylhexyl)phthalate	µg/L	106	123	42.5 - 161	Acceptable	EPA 625	8/23/2013	-0.0747	108	20.2	MEB
6265	Fluoranthene	µg/L	124	162	72.0 - 196	Acceptable	EPA 625	8/23/2013	-0.509	136	23.4	MEB
6270	Fluorene	µg/L	39.6	43.2	18.5 - 54.9	Acceptable	EPA 625	8/23/2013	0.292	37.9	5.77	MEB
6275	Hexachlorobenzene	µg/L	25.9	28.8	12.8 - 34.9	Acceptable	EPA 625	8/23/2013	0.297	24.7	4.02	MEB
4835	Hexachlorobutadiene	µg/L	32.5	79.4	8.35 - 96.8	Acceptable	EPA 625	8/23/2013	-0.743	47.1	19.6	MEB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 22 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833) (Continued)

6285	Hexachlorocyclopentadiene	µg/L	79.5	167	16.7 - 215	Acceptable	EPA 625	8/23/2013	-0.466	98.6	41.1	MEB
4840	Hexachloroethane	µg/L	38.2	85.2	8.52 - 93.9	Acceptable	EPA 625	8/23/2013	-0.501	49.0	21.6	MEB
6315	Indeno(1,2,3-cd)pyrene	µg/L	38.3	41.6	12.5 - 56.8	Acceptable	EPA 625	8/23/2013	1.11	30.8	6.74	MEB
6320	Isophorone	µg/L	44.1	62.1	22.6 - 77.9	Acceptable	EPA 625	8/23/2013	-0.349	46.9	8.05	MEB
6385	2-Methylnaphthalene	µg/L	< 10.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625	8/23/2013				MEB
5005	Naphthalene	µg/L	99.2	174	41.9 - 200	Acceptable	EPA 625	8/23/2013	-0.673	121	32.8	MEB
6460	2-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6465	3-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6470	4-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5015	Nitrobenzene	µg/L	75.4	105	34.2 - 124	Acceptable	EPA 625	8/23/2013	-0.281	79.6	15.1	MEB
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	42.5	85.2	8.52 - 101	Acceptable	EPA 625	8/23/2013	-0.0692	43.6	15.3	MEB
6535	N-Nitrosodiphenylamine	µg/L	< 10.0	< 5.60	0.00 - 5.60	Acceptable	EPA 625	8/23/2013				MEB
6545	N-Nitroso-di-n-propylamine	µg/L	< 10.0	< 9.40	0.00 - 9.40	Acceptable	EPA 625	8/23/2013				MEB
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	30.8	35.2	16.5 - 45.6	Acceptable	EPA 625	8/23/2013	0.186	30.0	4.09	MEB
6665	Pyrene	µg/L	53.0	52.1	21.7 - 68.6	Acceptable	EPA 625	8/23/2013	0.901	47.3	6.28	MEB
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	< 10.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625	8/23/2013				MEB





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Acids (cat# 834)

5610	Benzoic acid	µg/L		< 30.0	0.00 - 30.0	Not Reported						
5700	4-Chloro-3-methylphenol	µg/L	40.0	44.2	17.0 - 54.9	Acceptable	EPA 625	8/23/2013	0.491	36.9	6.26	MEB
5800	2-Chlorophenol	µg/L	55.3	74.2	21.7 - 89.4	Acceptable	EPA 625	8/23/2013	0.190	52.9	12.8	MEB
6000	2,4-Dichlorophenol	µg/L	45.4	54.7	19.4 - 66.8	Acceptable	EPA 625	8/23/2013	0.220	43.7	7.57	MEB
6005	2,6-Dichlorophenol	µg/L		120	37.5 - 150	Not Reported				100	18.1	
6130	2,4-Dimethylphenol	µg/L	50.6	66.3	19.0 - 83.3	Acceptable	EPA 625	8/23/2013	0.000361	50.6	9.52	MEB
6360	4,6-Dinitro-2-methylphenol	µg/L	145	176	56.8 - 236	Acceptable	EPA 625	8/23/2013	0.192	139	29.4	MEB
6175	2,4-Dinitrophenol	µg/L	89.5	104	10.4 - 150	Acceptable	EPA 625	8/23/2013	0.646	75.4	21.8	MEB
6400	2-Methylphenol	µg/L	41.4	61.1	14.2 - 73.6	Acceptable	EPA 625	8/23/2013	-0.12	42.6	10.3	MEB
6410	4-Methylphenol	µg/L	52.9	78.8	7.88 - 103	Acceptable	EPA 625	8/23/2013	-0.0793	54.0	13.5	MEB
6490	2-Nitrophenol	µg/L	76.8	100	31.9 - 123	Acceptable	EPA 625	8/23/2013	0.0895	75.5	14.2	MEB
6500	4-Nitrophenol	µg/L	42.0	108	10.8 - 146	Acceptable	EPA 625	8/23/2013	-0.332	50.4	25.4	MEB
6605	Pentachlorophenol	µg/L	92.0	94.5	30.5 - 128	Acceptable	EPA 625	8/23/2013	0.964	76.3	16.3	MEB
6625	Phenol	µg/L	40.2	128	12.8 - 172	Acceptable	EPA 625	8/23/2013	-0.56	55.5	27.3	MEB
6735	2,3,4,6-Tetrachlorophenol	µg/L		75.9	26.5 - 100	Not Reported				63.6	14.8	
6835	2,4,5-Trichlorophenol	µg/L	57.0	63.6	23.4 - 81.3	Acceptable	EPA 625	8/23/2013	0.655	51.1	8.97	MEB
6840	2,4,6-Trichlorophenol	µg/L	54.5	54.7	20.8 - 67.1	Acceptable	EPA 625	8/23/2013	0.800	48.1	7.94	MEB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 24 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Organochlorine Pesticides (cat# 831)

7025	Aldrin	µg/L	0.949	1.68	0.581 - 2.25	Acceptable	EPA 608	7/23/2013	-1.06	1.30	0.329	RPB
7110	alpha-BHC	µg/L	5.28	7.29	3.18 - 9.97	Acceptable	EPA 608	7/23/2013	-0.998	6.42	1.14	RPB
7115	beta-BHC	µg/L	6.23	7.66	3.62 - 10.4	Acceptable	EPA 608	7/23/2013	-0.6	7.01	1.30	RPB
7105	delta-BHC	µg/L	2.38	3.29	1.37 - 4.78	Acceptable	EPA 608	7/23/2013	-0.897	2.96	0.644	RPB
7120	gamma-BHC(Lindane)	µg/L	7.86	9.94	4.40 - 13.6	Acceptable	EPA 608	7/23/2013	-0.902	9.36	1.67	RPB
7240	alpha-Chlordane	µg/L	3.16	4.21	1.88 - 5.68	Acceptable	EPA 608	7/23/2013	-0.771	3.76	0.779	RPB
7245	gamma-Chlordane	µg/L	3.11	4.80	2.12 - 6.36	Acceptable	EPA 608	7/23/2013	-0.997	4.00	0.898	RPB
7355	4,4'-DDD	µg/L	4.02	5.59	2.63 - 7.81	Acceptable	EPA 608	7/23/2013	-1.0	5.05	1.03	RPB
7360	4,4'-DDE	µg/L	2.61	4.44	1.90 - 6.05	Acceptable	EPA 608	7/23/2013	-1.33	3.77	0.877	RPB
7365	4,4'-DDT	µg/L	2.78	4.08	1.62 - 5.93	Acceptable	EPA 608	7/23/2013	-1.07	3.62	0.789	RPB
7470	Dieldrin	µg/L	1.35	1.74	0.856 - 2.38	Acceptable	EPA 608	7/23/2013	-0.683	1.56	0.308	RPB
7540	Endrin	µg/L	2.91	4.80	2.10 - 6.86	Acceptable	EPA 608	7/23/2013	-1.83	4.58	0.914	RPB
7530	Endrin aldehyde	µg/L	5.62	6.63	2.44 - 9.92	Acceptable	EPA 608	7/23/2013	-0.223	5.89	1.22	RPB
7535	Endrin ketone	µg/L	8.80	11.0	5.90 - 14.5	Acceptable	EPA 608	7/23/2013	-0.649	10.1	1.97	RPB
7510	Endosulfan I	µg/L	< 1.40	< 1.40	0.00 - 1.40	Acceptable	EPA 608	7/23/2013				RPB
7515	Endosulfan II	µg/L	< 1.54	< 1.54	0.00 - 1.54	Acceptable	EPA 608	7/23/2013				RPB
7520	Endosulfan sulfate	µg/L	3.12	4.20	1.88 - 6.53	Acceptable	EPA 608	7/23/2013	-0.865	3.81	0.799	RPB
7685	Heptachlor	µg/L	2.64	4.60	1.62 - 6.26	Acceptable	EPA 608	7/23/2013	-1.3	3.77	0.868	RPB
7690	Heptachlor epoxide (beta)	µg/L	3.60	5.19	2.60 - 6.94	Acceptable	EPA 608	7/23/2013	-1.06	4.63	0.972	RPB
7810	Methoxychlor	µg/L	7.47	9.57	4.10 - 13.9	Acceptable	EPA 608	7/23/2013	-0.546	8.44	1.77	RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 25 of 26





A Waters Company

WP-222 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Chlordane (cat# 837)

7250	Chlordane, technical	µg/L	6.89	8.85	3.73 - 12.1	Acceptable	EPA 608	7/23/2013	-0.258	7.22	1.29	RPB
------	----------------------	------	------	------	-------------	------------	---------	-----------	--------	------	------	-----

WP Toxaphene (cat# 838)

8250	Toxaphene	µg/L	63.9	64.5	14.0 - 94.1	Acceptable	EPA 608	7/23/2013	0.301	60.4	11.5	RPB
------	-----------	------	------	------	-------------	------------	---------	-----------	-------	------	------	-----

WP Gasoline Range Organics (GRO) in Water (cat# 640)

9408	Gasoline Range Organics (GRO)	µg/L	1690	1580	550 - 2810	Acceptable	EPA 8260B 2 1996	8/21/2013	-0.388	1890	527	GXF
4375	Benzene in GRO	µg/L		16.9	7.88 - 27.6	Not Reported				16.3	1.67	
4765	Ethylbenzene in GRO	µg/L		50.7	31.3 - 69.8	Not Reported				56.9	5.28	
5140	Toluene in GRO	µg/L		147	82.1 - 192	Not Reported				135	7.94	
5260	Xylenes, total in GRO	µg/L		149	93.3 - 201	Not Reported				171	14.8	

WP Diesel Range Organics (DRO) in Water (cat# 641)

9369	Diesel Range Organics (DRO)	µg/L	3307	3900	993 - 4890	Acceptable	EPA 8015C 2000	8/8/2013	0.577	2870	753	TWH
------	-----------------------------	------	------	------	------------	------------	----------------	----------	-------	------	-----	-----

WP Total Petroleum Hydrocarbons (TPH) in Water (cat# 642)

1935	TPH (Gravimetric)	mg/L	57.0	87.5	40.9 - 126	Acceptable	EPA 1664A SGT 1999	8/7/2013	-1.53	73.0	10.5	WXC
1935	TPH (IR)	mg/L		108	51.0 - 156	Not Reported				113	18.8	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 26 of 26





Final Report Results For Laboratory

M J Reider Associates



2003 NELAC Evaluation Report

Study: WP-222

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Inorganic Results





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Minerals (cat# 581)

1505	Alkalinity as CaCO ₃	mg/L	60	61.0	48.8 - 73.2	Acceptable	SM2320B 20th ED 1997	8/1/2013	-0.25	60.7	2.85	MXB
1575	Chloride	mg/L	44.6	47.5	41.1 - 54.0	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-1.15	46.8	1.90	JAE
1610	Conductivity at 25°C	µmhos/cm	382	376	338 - 414	Acceptable	SM2510B 20th ED 1997	7/26/2013	-0.0789	383	9.24	EMW
1730	Fluoride	mg/L	2.80	2.97	2.39 - 3.43	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.499	2.88	0.169	JAE
1125	Potassium	mg/L	35.8	36.1	28.9 - 43.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	0.468	34.9	1.97	LNA
1155	Sodium	mg/L	54.9	57.2	45.8 - 68.6	Acceptable	EPA 200.7 4.4 1994	8/2/2013	-0.713	57.3	3.34	LNA
2000	Sulfate	mg/L	33.7	36.9	30.0 - 42.5	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-1.15	35.8	1.84	JAE
1955	Total Dissolved Solids at 180°C	mg/L		282	237 - 327	Not Reported				277	16.9	
1950	Total Solids at 105°C	mg/L		291	246 - 336	Not Reported				288	14.4	

WP Minerals (cat# 581)

1505	Alkalinity as CaCO ₃	mg/L		61.0	48.8 - 73.2	Not Reported				60.7	2.85	
1575	Chloride	mg/L		47.5	41.1 - 54.0	Not Reported				46.8	1.90	
1610	Conductivity at 25°C	µmhos/cm		376	338 - 414	Not Reported				383	9.24	
1730	Fluoride	mg/L	2.80	2.97	2.39 - 3.43	Acceptable	SM4500F- C 20th ED 1997	8/6/2013	-0.499	2.88	0.169	ALD
1125	Potassium	mg/L		36.1	28.9 - 43.3	Not Reported				34.9	1.97	
1155	Sodium	mg/L		57.2	45.8 - 68.6	Not Reported				57.3	3.34	
2000	Sulfate	mg/L		36.9	30.0 - 42.5	Not Reported				35.8	1.84	
1955	Total Dissolved Solids at 180°C	mg/L		282	237 - 327	Not Reported				277	16.9	
1950	Total Solids at 105°C	mg/L		291	246 - 336	Not Reported				288	14.4	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 3 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Hardness (cat# 580)

1960	Total Suspended Solids	mg/L		86.3	77.7 - 94.9	Not Reported				79.9	5.21	
1035	Calcium	mg/L	46.1	45.5	38.7 - 52.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	1.04	44.3	1.70	LNA
1085	Magnesium	mg/L	13.4	14.2	12.1 - 16.3	Acceptable	EPA 200.7 4.4 1994	8/2/2013	-0.612	13.8	0.647	LNA
1550	Calcium Hardness as CaCO ₃	mg/L	115	114	96.9 - 131	Acceptable	EPA 200.7 4.4 1994	8/2/2013	1.11	110	4.27	LNA
1755	Total Hardness as CaCO ₃	mg/L	170	172	146 - 198	Acceptable	EPA 200.7 4.4 1994	8/2/2013	0.526	167	5.76	LNA

WP Hardness (cat# 580)

1960	Total Suspended Solids	mg/L		86.3	77.7 - 94.9	Not Reported				79.9	5.21	
1035	Calcium	mg/L		45.5	38.7 - 52.3	Not Reported				44.3	1.70	
1085	Magnesium	mg/L		14.2	12.1 - 16.3	Not Reported				13.8	0.647	
1550	Calcium Hardness as CaCO ₃	mg/L	109	114	96.9 - 131	Acceptable	SM3500Ca B 20th ED 1997	8/15/2013	-0.297	110	4.27	ALD
1755	Total Hardness as CaCO ₃	mg/L	164	172	146 - 198	Acceptable	SM2340C 20th ED 1997	8/15/2013	-0.515	167	5.76	ALD

WP pH (cat# 577)

1900	pH	S.U.	5.60	5.57	5.37 - 5.77	Acceptable	SM4500H+ B 20th ED 1996	7/25/2013	-0.516	5.62	0.0466	EMW
------	----	------	------	------	-------------	------------	-------------------------	-----------	--------	------	--------	-----

WP Settleable Solids (cat# 883)

1965	Settleable Solids	mL/L	34.0	31.1	25.5 - 39.4	Acceptable	SM2540F 20th ED 1997	7/26/2013	0.943	31.8	2.37	EMW
------	-------------------	------	------	------	-------------	------------	----------------------	-----------	-------	------	------	-----

WP Volatile Solids (cat# 884)

1970	Volatile Solids, Total	mg/L	299	342	262 - 388	Acceptable	EPA 160.4 1971	8/7/2013	-2.01	332	16.7	RDD
------	------------------------	------	-----	-----	-----------	------------	----------------	----------	-------	-----	------	-----

WP Solids (cat# 241)

1960	Total Suspended Solids	mg/L	51	56.0	48.5 - 63.5	Acceptable	SM2540D 20th ED 1997	7/23/2013	-0.0582	51.1	2.58	RDD
1955	Total Dissolved Solids at 180°C	mg/L	363	366	321 - 411	Acceptable	SM2540C 20th ED 1997	7/23/2013	0.728	356	9.11	RDD
1950	Total Solids at 105°C	mg/L	403	427	382 - 472	Acceptable	SM2540B 20th ED 1997	7/23/2013	-0.508	419	30.8	RDD



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Simple Nutrients (cat# 584)

1515	Ammonia as N	mg/L	15.8	15.4	12.4 - 18.3	Acceptable	ASTM D6919-03 2003	8/2/2013	0.358	15.4	1.09	JCL
1820	Nitrate + Nitrite as N	mg/L	15.1	15.1	12.6 - 17.4	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.0148	15.1	0.935	JAE
1810	Nitrate as N	mg/L	15.1	15.1	12.6 - 17.5	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.00355	15.1	0.965	JAE
1870	ortho-Phosphate as P	mg/L	3.24	3.36	2.86 - 3.86	Acceptable	SM4500P E 20th ED 1997	8/1/2013	-0.664	3.36	0.187	ALD

WP Simple Nutrients (cat# 584)

1515	Ammonia as N	mg/L	14.3	15.4	12.4 - 18.3	Acceptable	EPA 350.1 2 1993	8/2/2013	-1.02	15.4	1.09	JCL
1820	Nitrate + Nitrite as N	mg/L	15.6	15.1	12.6 - 17.4	Acceptable	EPA 353.2 2 1993	7/24/2013	0.520	15.1	0.935	JCL
1810	Nitrate as N	mg/L	15.6	15.1	12.6 - 17.5	Acceptable	EPA 353.2 2 1993	7/24/2013	0.515	15.1	0.965	JCL
1870	ortho-Phosphate as P	mg/L	3.39	3.36	2.86 - 3.86	Acceptable	SM4500P F 20th ED 1997	8/1/2013	0.136	3.36	0.187	JCL

WP Complex Nutrients (cat# 579)

1795	Total Kjeldahl Nitrogen	mg/L	18.3	18.5	13.8 - 22.5	Acceptable	EPA 351.2 2 1993	7/23/2013	-0.02	18.3	1.28	JCL
1910	Total phosphorus as P	mg/L	6.23	6.69	5.56 - 7.74	Acceptable	SM4500P E 20th ED 1997	8/1/2013	-1.13	6.67	0.392	ALD

WP Complex Nutrients (cat# 579)

1795	Total Kjeldahl Nitrogen	mg/L		18.5	13.8 - 22.5	Not Reported				18.3	1.28	
1910	Total phosphorus as P	mg/L	6.33	6.69	5.56 - 7.74	Acceptable	SM4500P F 20th ED 1997	8/2/2013	-0.874	6.67	0.392	JCL

WP Nitrite (cat# 888)

1840	Nitrite as N	mg/L	0.930	0.954	0.770 - 1.14	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.494	0.956	0.0524	JAE
------	--------------	------	-------	-------	--------------	------------	--------------------	-----------	--------	-------	--------	-----

WP Nitrite (cat# 888)

1840	Nitrite as N	mg/L	0.958	0.954	0.770 - 1.14	Acceptable	EPA 353.2 2 1993	7/24/2013	0.0412	0.956	0.0524	JCL
------	--------------	------	-------	-------	--------------	------------	------------------	-----------	--------	-------	--------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 5 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Demand (cat# 578)

1530	BOD	mg/L	122	122	66.0 - 179	Acceptable	SM5210B 20th ED 1997	8/15/2013	-0.0571	123	18.7	EMW
1555	CBOD	mg/L	119	111	51.9 - 170	Acceptable	SM5210B 20th ED 1997	8/15/2013	0.236	114	22.6	EMW
1565	COD	mg/L	207	199	161 - 230	Acceptable	HACH 8000	8/23/2013	0.686	199	11.9	TMH
2040	TOC	mg/L	80.5	78.7	66.0 - 90.5	Acceptable	SM5310C 20th ED 1996	7/31/2013	0.412	78.6	4.55	ALD

WP Oil & Grease Concentrate (cat# 4120)

1860	n-Hexane Extractable Material(O&G)(Grav)	mg/L	73	107	76.4 - 124	Not Acceptable	EPA 1664A 1999	8/5/2013	-4.78	98.5	5.33	WXC
------	--	------	----	-----	------------	----------------	----------------	----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 6 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L	432	420	329 - 515	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.0107	432	21.8	LNA
1005	Antimony	µg/L	413	429	343 - 501	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.15	416	20.1	LNA
1010	Arsenic	µg/L	334	342	282 - 399	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.0707	333	14.3	LNA
1015	Barium	µg/L	685	702	597 - 807	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.503	698	25.2	LNA
1020	Beryllium	µg/L	206	203	172 - 233	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.676	200	8.74	LNA
1025	Boron	µg/L	823	837	711 - 963	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.435	845	50.7	LNA
1030	Cadmium	µg/L	206	203	173 - 233	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.694	199	9.46	LNA
1040	Chromium	µg/L	232	229	195 - 263	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.448	228	8.98	LNA
1050	Cobalt	µg/L	445	409	348 - 470	Acceptable	EPA 200.7 4.4 1994	7/22/2013	1.09	426	17.7	LNA
1055	Copper	µg/L	487	490	416 - 564	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.273	493	20.8	LNA
1070	Iron	µg/L	890	836	711 - 961	Acceptable	EPA 200.7 4.4 1994	7/31/2013	1.21	847	35.5	LNA
1075	Lead	µg/L	738	741	630 - 852	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.153	743	30.8	LNA
1090	Manganese	µg/L	503	483	411 - 555	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.432	495	17.6	LNA
1100	Molybdenum	µg/L	277	273	233 - 310	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.573	271	11.1	LNA
1105	Nickel	µg/L	349	360	311 - 413	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.601	357	14.1	LNA
1140	Selenium	µg/L	607	638	542 - 734	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.544	625	32.5	LNA
1150	Silver	µg/L	572	572	486 - 658	Acceptable	EPA 200.7 4.4 1994	8/1/2013	0.112	569	25.0	LNA
1160	Strontium	µg/L	333	338	287 - 389	Acceptable	EPA 200.7 4.4 1994	8/12/2013	-0.464	339	12.5	LNA
1165	Thallium	µg/L	337	342	277 - 401	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.244	341	16.4	LNA
1185	Vanadium	µg/L	204	211	179 - 243	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.432	207	6.85	LNA



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L	1680	1690	1440 - 1940	Acceptable	EPA 200.7 4.4 1994	7/22/2013	0.148	1670	78.2	LNA
------	------	------	------	------	-------------	------------	--------------------	-----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 8 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L	452	420	329 - 515	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.926	432	21.8	RLS
1005	Antimony	µg/L	443	429	343 - 501	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.34	416	20.1	RLS
1010	Arsenic	µg/L	348	342	282 - 399	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.05	333	14.3	RLS
1015	Barium	µg/L	677	702	597 - 807	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.821	698	25.2	RLS
1020	Beryllium	µg/L	215	203	172 - 233	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.70	200	8.74	RLS
1025	Boron	µg/L		837	711 - 963	Not Reported				845	50.7	
1030	Cadmium	µg/L	198	203	173 - 233	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.152	199	9.46	RLS
1040	Chromium	µg/L	236	229	195 - 263	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.894	228	8.98	RLS
1050	Cobalt	µg/L	437	409	348 - 470	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.634	426	17.7	RLS
1055	Copper	µg/L	490	490	416 - 564	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.129	493	20.8	RLS
1070	Iron	µg/L		836	711 - 961	Not Reported				847	35.5	
1075	Lead	µg/L	722	741	630 - 852	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.671	743	30.8	RLS
1090	Manganese	µg/L	521	483	411 - 555	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.45	495	17.6	RLS
1100	Molybdenum	µg/L	285	273	233 - 310	Acceptable	EPA 200.8 5.4 1994	7/31/2013	1.29	271	11.1	RLS
1105	Nickel	µg/L	371	360	311 - 413	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.961	357	14.1	RLS
1140	Selenium	µg/L	649	638	542 - 734	Acceptable	EPA 200.8 5.4 1994	7/31/2013	0.750	625	32.5	RLS
1150	Silver	µg/L	567	572	486 - 658	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-0.0872	569	25.0	RLS
1160	Strontium	µg/L		338	287 - 389	Not Reported				339	12.5	
1165	Thallium	µg/L	322	342	277 - 401	Acceptable	EPA 200.8 5.4 1994	7/31/2013	-1.16	341	16.4	RLS
1185	Vanadium	µg/L	223	211	179 - 243	Acceptable	EPA 200.8 5.4 1994	7/31/2013	2.34	207	6.85	RLS



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L	1860	1690	1440 - 1940	Acceptable	EPA 200.8 5.4 1994	7/31/2013	2.45	1670	78.2	RLS
------	------	------	------	------	-------------	------------	--------------------	-----------	------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 10 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586)

1000	Aluminum	µg/L		420	329 - 515	Not Reported				432	21.8	
1005	Antimony	µg/L	442	429	343 - 501	Acceptable	EPA 200.9 2.2 1994	8/1/2013	1.30	416	20.1	RLS
1010	Arsenic	µg/L	355	342	282 - 399	Acceptable	EPA 200.9 2.2 1994	8/9/2013	1.54	333	14.3	RLS
1015	Barium	µg/L		702	597 - 807	Not Reported				698	25.2	
1020	Beryllium	µg/L		203	172 - 233	Not Reported				200	8.74	
1025	Boron	µg/L		837	711 - 963	Not Reported				845	50.7	
1030	Cadmium	µg/L		203	173 - 233	Not Reported				199	9.46	
1040	Chromium	µg/L		229	195 - 263	Not Reported				228	8.98	
1050	Cobalt	µg/L		409	348 - 470	Not Reported				426	17.7	
1055	Copper	µg/L		490	416 - 564	Not Reported				493	20.8	
1070	Iron	µg/L		836	711 - 961	Not Reported				847	35.5	
1075	Lead	µg/L	762	741	630 - 852	Acceptable	EPA 200.9 2.2 1994	8/2/2013	0.626	743	30.8	RLS
1090	Manganese	µg/L		483	411 - 555	Not Reported				495	17.6	
1100	Molybdenum	µg/L		273	233 - 310	Not Reported				271	11.1	
1105	Nickel	µg/L		360	311 - 413	Not Reported				357	14.1	
1140	Selenium	µg/L	643	638	542 - 734	Acceptable	EPA 200.9 2.2 1994	8/2/2013	0.565	625	32.5	RLS
1150	Silver	µg/L		572	486 - 658	Not Reported				569	25.0	
1160	Strontium	µg/L		338	287 - 389	Not Reported				339	12.5	
1165	Thallium	µg/L		342	277 - 401	Not Reported				341	16.4	
1185	Vanadium	µg/L		211	179 - 243	Not Reported				207	6.85	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Trace Metals (cat# 586) (Continued)

1190	Zinc	µg/L		1690	1440 - 1940	Not Reported				1670	78.2	
------	------	------	--	------	-------------	--------------	--	--	--	------	------	--

WP Mercury (cat# 574)

1095	Mercury	µg/L	6.85	5.52	3.86 - 7.18	Acceptable	EPA 245.1 3 1994	8/2/2013	2.25	5.44	0.625	JXS
------	---------	------	------	------	-------------	------------	------------------	----------	------	------	-------	-----

WP Hexavalent Chromium (cat# 898)

1045	Hexavalent Chromium	µg/L	158	170	139 - 200	Acceptable	EPA 218.6 3.3 1994	8/6/2013	-0.917	167	10.2	MXB
------	---------------------	------	-----	-----	-----------	------------	--------------------	----------	--------	-----	------	-----

WP Hexavalent Chromium (cat# 898)

1045	Hexavalent Chromium	µg/L	154	170	139 - 200	Acceptable	SM3500Cr B 20th ED 1997	8/21/2013	-1.31	167	10.2	JCL
------	---------------------	------	-----	-----	-----------	------------	-------------------------	-----------	-------	-----	------	-----

WP Tin & Titanium (cat# 573)

1175	Tin	µg/L	1200	1240	868 - 1610	Acceptable	EPA 200.7 4.4 1994	8/1/2013	-0.321	1220	61.1	LNA
1180	Titanium	µg/L	260	264	224 - 304	Acceptable	EPA 200.7 4.4 1994	7/22/2013	-0.119	261	9.58	LNA

WP Color (cat# 882)

1605	Color	PC units	60	50.0	35.2 - 60.8	Acceptable	SM2120B 20th ED 1993	7/23/2013	3.16	46.6	4.22	JXS
------	-------	----------	----	------	-------------	------------	----------------------	-----------	------	------	------	-----

WP Turbidity (cat# 893)

2055	Turbidity	NTU	6.15	6.58	5.16 - 7.98	Acceptable	EPA 180.1 2 1993	7/31/2013	-0.616	6.40	0.405	MXB
------	-----------	-----	------	------	-------------	------------	------------------	-----------	--------	------	-------	-----

WP Total Cyanide (cat# 588)

1645	Cyanide, total	mg/L	0.439	0.444	0.289 - 0.599	Acceptable	Lachat 10204001X	8/13/2013	0.127	0.434	0.0353	JCL
1510	Amenable Cyanide	mg/L		0.278	0.181 - 0.375	Not Reported				0.277	0.0546	

WP Total Phenolics (4-AAP) (cat# 589)

1905	Phenolics, total	mg/L	1.03	0.896	0.448 - 1.34	Acceptable	EPA 420.4 1 1993	7/29/2013	0.360	0.962	0.189	JCL
------	------------------	------	------	-------	--------------	------------	------------------	-----------	-------	-------	-------	-----

WP Silica (cat# 890)

1990	Silica as SiO ₂	mg/L	96.5	93.2	69.9 - 116	Acceptable	EPA 200.7 4.4 1994	8/12/2013	0.698	92.4	5.86	LNA
------	----------------------------	------	------	------	------------	------------	--------------------	-----------	-------	------	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Silica (cat# 890)

1990	Silica as SiO ₂	mg/L	89.7	93.2	69.9 - 116	Acceptable	SM4500SiO ₂ C 20th ED 1997	8/2/2013	-0.462	92.4	5.86	ALD
------	----------------------------	------	------	------	------------	------------	---------------------------------------	----------	--------	------	------	-----

WP Sulfide (cat# 891)

2005	Sulfide	mg/L	3.76	4.79	1.92 - 7.07	Acceptable	SM4500S2- F 20th ED 1997	8/7/2013	-0.713	4.36	0.848	JAE
------	---------	------	------	------	-------------	------------	--------------------------	----------	--------	------	-------	-----

WP Surfactants - MBAS (cat# 892)

2025	Surfactants (MBAS)	mg/L	0.466	0.397	0.235 - 0.579	Acceptable	SM5540C 20th ED 1993	8/6/2013	0.732	0.417	0.0663	WXC
------	--------------------	------	-------	-------	---------------	------------	----------------------	----------	-------	-------	--------	-----

WP Acidity (cat# 885)

1500	Acidity as CaCO ₃	mg/L	1320	1210	1090 - 1330	Acceptable	SM2310B 20th ED 1997	7/24/2013	3.91	1190	33.2	MXB
------	------------------------------	------	------	------	-------------	------------	----------------------	-----------	------	------	------	-----

WP Bromide (cat# 887)

1540	Bromide	mg/L	5.53	5.68	4.73 - 6.64	Acceptable	EPA 300.0 2.1 1993	7/26/2013	-0.889	5.82	0.332	JAE
------	---------	------	------	------	-------------	------------	--------------------	-----------	--------	------	-------	-----

WP Total Residual Chlorine (cat# 587)

1940	Total Residual Chlorine	mg/L	1.85	1.70	1.26 - 2.00	Acceptable	SM4500Cl G 20th ED 1993	8/2/2013	1.41	1.67	0.130	BAR
------	-------------------------	------	------	------	-------------	------------	-------------------------	----------	------	------	-------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 13 of 26



2003 NELAC Evaluation Report

Study: WP-222

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Organic Results





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830)

4315	Acetone	µg/L	< 3.90	< 3.90	0.00 - 3.90	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4320	Acetonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4325	Acrolein	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4375	Benzene	µg/L	32.5	30.5	21.4 - 39.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	1.05	29.5	2.90	GXF
4395	Bromodichloromethane	µg/L	48.7	51.4	30.8 - 72.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.419	46.8	4.41	GXF
4400	Bromoform	µg/L	39.9	39.0	23.4 - 54.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0768	40.2	4.38	GXF
4950	Bromomethane	µg/L	25.1	29.8	11.9 - 47.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0505	25.5	7.64	GXF
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.4	46.0	30.4 - 63.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.458	46.1	5.09	GXF
4450	Carbon disulfide	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4455	Carbon tetrachloride	µg/L	20.6	20.2	10.7 - 28.1	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.515	19.4	2.37	GXF
4475	Chlorobenzene	µg/L	17.6	17.6	12.3 - 22.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.472	16.9	1.51	GXF
4575	Chlorodibromomethane	µg/L	69.4	72.5	43.5 - 102	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.563	73.9	7.96	GXF
4485	Chloroethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4505	Chloroform	µg/L	55.8	56.0	39.2 - 72.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.0736	56.2	6.14	GXF
4960	Chloromethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L	< 9.00	< 9.00	0.00 - 9.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4585	1,2-Dibromoethane (EDB)	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4595	Dibromomethane	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4610	1,2-Dichlorobenzene	µg/L	17.6	17.6	12.3 - 22.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.281	17.2	1.36	GXF
4615	1,3-Dichlorobenzene	µg/L	46.4	45.3	31.7 - 58.9	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.368	44.8	4.27	GXF
4620	1,4-Dichlorobenzene	µg/L	14.0	13.6	9.52 - 17.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.308	13.6	1.25	GXF
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4630	1,1-Dichloroethane	µg/L	15.6	15.9	10.2 - 22.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.319	15.0	1.97	GXF
4635	1,2-Dichloroethane	µg/L	23.3	22.3	15.8 - 30.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.449	22.3	2.18	GXF
4640	1,1-Dichloroethylene	µg/L	45.4	43.4	25.2 - 63.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.018	45.5	6.17	GXF
4645	cis-1,2-Dichloroethylene	µg/L	25.2	23.9	16.3 - 32.1	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.540	23.7	2.74	GXF
4700	trans-1,2-Dichloroethylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4655	1,2-Dichloropropane	µg/L	24.9	24.6	17.2 - 32.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.433	23.9	2.31	GXF
4680	cis-1,3-Dichloropropylene	µg/L	21.2	21.9	14.2 - 29.6	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.390	20.2	2.65	GXF
4685	trans-1,3-Dichloropropylene	µg/L	61.2	71.0	46.2 - 95.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.683	67.8	9.70	GXF
4765	Ethylbenzene	µg/L	14.0	13.2	9.24 - 17.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.791	13.0	1.21	GXF
4835	Hexachlorobutadiene	µg/L	< 4.30	< 4.30	0.00 - 4.30	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4860	2-Hexanone	µg/L	< 4.40	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

4975	Methylene chloride	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
4995	4-Methyl-2-pentanone (MIBK)	µg/L	24.8	28.3	6.85 - 47.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.652	27.4	3.92	GXF
5005	Naphthalene	µg/L	14.9	15.7	6.67 - 23.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.076	15.0	1.62	GXF
5100	Styrene	µg/L	42.7	46.2	30.0 - 62.4	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.471	44.7	4.23	GXF
5105	1,1,1,2-Tetrachloroethane	µg/L	< 9.80	< 9.80	0.00 - 9.80	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5110	1,1,2,2-Tetrachloroethane	µg/L	17.0	16.9	11.0 - 22.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.0575	16.9	1.82	GXF
5115	Tetrachloroethylene	µg/L	46.2	48.7	26.9 - 63.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.06	46.6	6.30	GXF
5140	Toluene	µg/L	48.1	44.8	31.4 - 58.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.859	44.5	4.18	GXF
5155	1,2,4-Trichlorobenzene	µg/L	46.2	51.5	21.6 - 70.2	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.472	49.4	6.72	GXF
5160	1,1,1-Trichloroethane	µg/L	31.0	32.5	19.5 - 45.5	Acceptable	EPA 624 Appendix A 1982	7/26/2013	-0.123	31.4	3.66	GXF
5165	1,1,2-Trichloroethane	µg/L	45.8	45.4	31.8 - 59.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.0478	45.6	4.15	GXF
5170	Trichloroethylene	µg/L	23.8	23.7	14.9 - 31.8	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.379	22.9	2.25	GXF
5175	Trichlorofluoromethane	µg/L	41.6	36.7	14.7 - 58.7	Acceptable	EPA 624 Appendix A 1982	7/26/2013	0.524	37.6	7.52	GXF
5180	1,2,3-Trichloropropane (TCP)	µg/L	< 4.10	< 4.10	0.00 - 4.10	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5210	1,2,4-Trimethylbenzene	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5215	1,3,5-Trimethylbenzene	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5235	Vinyl chloride	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Volatiles (cat# 830) (Continued)

5240	m&p-Xylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5250	o-Xylene	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF
5260	Xylenes, total	µg/L	< 12.0	< 12.0	0.00 - 12.0	Acceptable	EPA 624 Appendix A 1982	7/26/2013				GXF



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 18 of 26

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Chlorinated Acid Herbicides (cat# 829)

8505	Acifluorfen	µg/L		6.40	0.896 - 9.42	Not Reported				6.31	2.14	
8530	Bentazon	µg/L		2.46	0.246 - 4.47	Not Reported				2.54	0.791	
8540	Chloramben	µg/L		2.54	0.254 - 3.87	Not Reported				2.04	0.371	
8545	2,4-D	µg/L	2.13	2.16	0.216 - 3.59	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.619	1.84	0.466	RPB
8560	2,4-DB	µg/L	2.90	3.86	0.386 - 6.56	Acceptable	SM6640B 20th ED 1994	7/25/2013	-0.437	3.29	0.902	RPB
8550	Dacthal diacid (DCPA)	µg/L		3.28	0.414 - 4.68	Not Reported				2.63	0.418	
8555	Dalapon	µg/L	4.24	3.68	0.368 - 5.81	Acceptable	SM6640B 20th ED 1994	7/25/2013	1.64	2.89	0.824	RPB
8595	Dicamba	µg/L	2.36	2.58	0.509 - 4.10	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.538	2.08	0.524	RPB
8600	3,5-Dichlorobenzoic acid	µg/L		2.60	0.546 - 3.92	Not Reported				2.05	0.638	
8605	Dichlorprop	µg/L	4.28	3.18	0.544 - 4.78	Acceptable	SM6640B 20th ED 1994	7/25/2013	1.95	2.84	0.738	RPB
8620	Dinoseb	µg/L	1.04	2.38	0.238 - 3.59	Acceptable	SM6640B 20th ED 1994	7/25/2013	-1.57	1.60	0.353	RPB
7775	MCPA	µg/L		< 10.0	0.00 - 10.0	Not Reported						
7780	MCPP	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6500	4-Nitrophenol	µg/L		2.52	0.252 - 3.87	Not Reported				1.49	0.659	
6605	Pentachlorophenol	µg/L		2.37	0.305 - 3.58	Not Reported				1.98	0.399	
8645	Picloram	µg/L		2.86	0.286 - 4.63	Not Reported				2.40	0.450	
8655	2,4,5-T	µg/L	4.61	5.04	1.03 - 7.44	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.475	4.08	1.12	RPB
8650	2,4,5-TP (Silvex)	µg/L	1.87	2.03	0.542 - 3.15	Acceptable	SM6640B 20th ED 1994	7/25/2013	0.314	1.76	0.335	RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 19 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP PCBs in Water (cat# 832S)

8880	Aroclor 1016	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8885	Aroclor 1221	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8890	Aroclor 1232	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8895	Aroclor 1242	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8900	Aroclor 1248	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB
8905	Aroclor 1254	µg/L	6.04	5.34	1.98 - 7.30	Acceptable	EPA 608	7/25/2013	0.989	4.87	1.18	RPB
8910	Aroclor 1260	µg/L	< 0.8	< 0.800	0.00 - 0.800	Acceptable	EPA 608	7/25/2013				RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 20 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833)

5500	Acenaphthene	µg/L	14.9	18.4	6.88 - 23.3	Acceptable	EPA 625	8/23/2013	0.146	14.5	2.82	MEB
5505	Acenaphthylene	µg/L	< 10.0	< 2.90	0.00 - 2.90	Acceptable	EPA 625	8/23/2013				MEB
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5555	Anthracene	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625	8/23/2013				MEB
5595	Benzidine	µg/L	< 20.0	< 200	0.00 - 200	Acceptable	EPA 625	8/23/2013				MEB
5575	Benzo(a)anthracene	µg/L	67.0	72.1	34.0 - 88.0	Acceptable	EPA 625	8/23/2013	0.634	61.8	8.26	MEB
5585	Benzo(b)fluoranthene	µg/L	21.6	20.4	7.66 - 26.6	Acceptable	EPA 625	8/23/2013	1.65	16.6	3.00	MEB
5600	Benzo(k)fluoranthene	µg/L	< 10.0	< 7.70	0.00 - 7.70	Acceptable	EPA 625	8/23/2013				MEB
5590	Benzo(g,h,i)perylene	µg/L	< 10.0	< 5.10	0.00 - 5.10	Acceptable	EPA 625	8/23/2013				MEB
5580	Benzo(a)pyrene	µg/L	19.3	24.3	7.76 - 32.0	Acceptable	EPA 625	8/23/2013	0.312	18.2	3.66	MEB
5630	Benzyl alcohol	µg/L	19.0	< 10.0	0.00 - 10.0	Not Acceptable	EPA 625	8/23/2013				MEB
5660	4-Bromophenyl-phenylether	µg/L	< 10.0	< 8.60	0.00 - 8.60	Acceptable	EPA 625	8/23/2013				MEB
5670	Butylbenzylphthalate	µg/L	79.3	186	56.5 - 255	Acceptable	EPA 625	8/23/2013	-2.44	158	32.4	MEB
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5760	bis(2-Chloroethoxy)methane	µg/L	24.2	32.4	8.88 - 41.4	Acceptable	EPA 625	8/23/2013	-0.0503	24.4	3.93	MEB
5765	bis(2-Chloroethyl)ether	µg/L	16.6	22.8	6.63 - 30.4	Acceptable	EPA 625	8/23/2013	-0.293	17.7	3.84	MEB
5780	bis(2-Chloroisopropyl)ether	µg/L	24.8	33.8	4.40 - 48.2	Acceptable	EPA 625	8/23/2013	-0.27	26.4	5.86	MEB
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833) (Continued)

5795	2-Chloronaphthalene	µg/L	23.8	32.2	9.56 - 41.1	Acceptable	EPA 625	8/23/2013	-0.0171	23.9	5.55	MEB
5825	4-Chlorophenyl-phenylether	µg/L	104	146	53.0 - 178	Acceptable	EPA 625	8/23/2013	-0.682	119	22.1	MEB
5855	Chrysene	µg/L	< 10.0	< 5.80	0.00 - 5.80	Acceptable	EPA 625	8/23/2013				MEB
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 625	8/23/2013				MEB
5905	Dibenzofuran	µg/L	33.7	41.8	15.9 - 51.4	Acceptable	EPA 625	8/23/2013	0.259	32.4	5.06	MEB
5925	Di-n-butylphthalate	µg/L	64.2	130	45.7 - 167	Acceptable	EPA 625	8/23/2013	-2.13	112	22.5	MEB
4610	1,2-Dichlorobenzene	µg/L	86.5	194	29.3 - 219	Acceptable	EPA 625	8/23/2013	-0.631	114	43.2	MEB
4615	1,3-Dichlorobenzene	µg/L	44.4	87.5	8.75 - 103	Acceptable	EPA 625	8/23/2013	-0.354	51.4	19.9	MEB
4620	1,4-Dichlorobenzene	µg/L	< 10.0	< 3.70	0.00 - 3.70	Acceptable	EPA 625	8/23/2013				MEB
5945	3,3'-Dichlorobenzidine	µg/L	< 20.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625	8/23/2013				MEB
6070	Diethylphthalate	µg/L	< 10.0	72.2	12.3 - 103	Not Acceptable	EPA 625	8/23/2013		60.3	9.93	MEB
6135	Dimethylphthalate	µg/L	< 10.0	< 11.5	0.00 - 11.5	Acceptable	EPA 625	8/23/2013				MEB
6185	2,4-Dinitrotoluene	µg/L	88.6	95.4	39.7 - 118	Acceptable	EPA 625	8/23/2013	0.601	81.1	12.4	MEB
6190	2,6-Dinitrotoluene	µg/L	28.6	30.3	12.3 - 37.1	Acceptable	EPA 625	8/23/2013	0.979	24.1	4.54	MEB
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625	8/23/2013				MEB
6065	bis(2-Ethylhexyl)phthalate	µg/L	106	123	42.5 - 161	Acceptable	EPA 625	8/23/2013	-0.0747	108	20.2	MEB
6265	Fluoranthene	µg/L	124	162	72.0 - 196	Acceptable	EPA 625	8/23/2013	-0.509	136	23.4	MEB
6270	Fluorene	µg/L	39.6	43.2	18.5 - 54.9	Acceptable	EPA 625	8/23/2013	0.292	37.9	5.77	MEB
6275	Hexachlorobenzene	µg/L	25.9	28.8	12.8 - 34.9	Acceptable	EPA 625	8/23/2013	0.297	24.7	4.02	MEB
4835	Hexachlorobutadiene	µg/L	32.5	79.4	8.35 - 96.8	Acceptable	EPA 625	8/23/2013	-0.743	47.1	19.6	MEB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Base/Neutrals (cat# 833) (Continued)

6285	Hexachlorocyclopentadiene	µg/L	79.5	167	16.7 - 215	Acceptable	EPA 625	8/23/2013	-0.466	98.6	41.1	MEB
4840	Hexachloroethane	µg/L	38.2	85.2	8.52 - 93.9	Acceptable	EPA 625	8/23/2013	-0.501	49.0	21.6	MEB
6315	Indeno(1,2,3-cd)pyrene	µg/L	38.3	41.6	12.5 - 56.8	Acceptable	EPA 625	8/23/2013	1.11	30.8	6.74	MEB
6320	Isophorone	µg/L	44.1	62.1	22.6 - 77.9	Acceptable	EPA 625	8/23/2013	-0.349	46.9	8.05	MEB
6385	2-Methylnaphthalene	µg/L	< 10.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625	8/23/2013				MEB
5005	Naphthalene	µg/L	99.2	174	41.9 - 200	Acceptable	EPA 625	8/23/2013	-0.673	121	32.8	MEB
6460	2-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6465	3-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6470	4-Nitroaniline	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5015	Nitrobenzene	µg/L	75.4	105	34.2 - 124	Acceptable	EPA 625	8/23/2013	-0.281	79.6	15.1	MEB
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	42.5	85.2	8.52 - 101	Acceptable	EPA 625	8/23/2013	-0.0692	43.6	15.3	MEB
6535	N-Nitrosodiphenylamine	µg/L	< 10.0	< 5.60	0.00 - 5.60	Acceptable	EPA 625	8/23/2013				MEB
6545	N-Nitroso-di-n-propylamine	µg/L	< 10.0	< 9.40	0.00 - 9.40	Acceptable	EPA 625	8/23/2013				MEB
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	30.8	35.2	16.5 - 45.6	Acceptable	EPA 625	8/23/2013	0.186	30.0	4.09	MEB
6665	Pyrene	µg/L	53.0	52.1	21.7 - 68.6	Acceptable	EPA 625	8/23/2013	0.901	47.3	6.28	MEB
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	< 10.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625	8/23/2013				MEB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Acids (cat# 834)

5610	Benzoic acid	µg/L		< 30.0	0.00 - 30.0	Not Reported						
5700	4-Chloro-3-methylphenol	µg/L	40.0	44.2	17.0 - 54.9	Acceptable	EPA 625	8/23/2013	0.491	36.9	6.26	MEB
5800	2-Chlorophenol	µg/L	55.3	74.2	21.7 - 89.4	Acceptable	EPA 625	8/23/2013	0.190	52.9	12.8	MEB
6000	2,4-Dichlorophenol	µg/L	45.4	54.7	19.4 - 66.8	Acceptable	EPA 625	8/23/2013	0.220	43.7	7.57	MEB
6005	2,6-Dichlorophenol	µg/L		120	37.5 - 150	Not Reported				100	18.1	
6130	2,4-Dimethylphenol	µg/L	50.6	66.3	19.0 - 83.3	Acceptable	EPA 625	8/23/2013	0.000361	50.6	9.52	MEB
6360	4,6-Dinitro-2-methylphenol	µg/L	145	176	56.8 - 236	Acceptable	EPA 625	8/23/2013	0.192	139	29.4	MEB
6175	2,4-Dinitrophenol	µg/L	89.5	104	10.4 - 150	Acceptable	EPA 625	8/23/2013	0.646	75.4	21.8	MEB
6400	2-Methylphenol	µg/L	41.4	61.1	14.2 - 73.6	Acceptable	EPA 625	8/23/2013	-0.12	42.6	10.3	MEB
6410	4-Methylphenol	µg/L	52.9	78.8	7.88 - 103	Acceptable	EPA 625	8/23/2013	-0.0793	54.0	13.5	MEB
6490	2-Nitrophenol	µg/L	76.8	100	31.9 - 123	Acceptable	EPA 625	8/23/2013	0.0895	75.5	14.2	MEB
6500	4-Nitrophenol	µg/L	42.0	108	10.8 - 146	Acceptable	EPA 625	8/23/2013	-0.332	50.4	25.4	MEB
6605	Pentachlorophenol	µg/L	92.0	94.5	30.5 - 128	Acceptable	EPA 625	8/23/2013	0.964	76.3	16.3	MEB
6625	Phenol	µg/L	40.2	128	12.8 - 172	Acceptable	EPA 625	8/23/2013	-0.56	55.5	27.3	MEB
6735	2,3,4,6-Tetrachlorophenol	µg/L		75.9	26.5 - 100	Not Reported				63.6	14.8	
6835	2,4,5-Trichlorophenol	µg/L	57.0	63.6	23.4 - 81.3	Acceptable	EPA 625	8/23/2013	0.655	51.1	8.97	MEB
6840	2,4,6-Trichlorophenol	µg/L	54.5	54.7	20.8 - 67.1	Acceptable	EPA 625	8/23/2013	0.800	48.1	7.94	MEB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 24 of 26





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

PA00035
M581801
09/03/13
07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Organochlorine Pesticides (cat# 831)

7025	Aldrin	µg/L	0.949	1.68	0.581 - 2.25	Acceptable	EPA 608	7/23/2013	-1.06	1.30	0.329	RPB
7110	alpha-BHC	µg/L	5.28	7.29	3.18 - 9.97	Acceptable	EPA 608	7/23/2013	-0.998	6.42	1.14	RPB
7115	beta-BHC	µg/L	6.23	7.66	3.62 - 10.4	Acceptable	EPA 608	7/23/2013	-0.6	7.01	1.30	RPB
7105	delta-BHC	µg/L	2.38	3.29	1.37 - 4.78	Acceptable	EPA 608	7/23/2013	-0.897	2.96	0.644	RPB
7120	gamma-BHC(Lindane)	µg/L	7.86	9.94	4.40 - 13.6	Acceptable	EPA 608	7/23/2013	-0.902	9.36	1.67	RPB
7240	alpha-Chlordane	µg/L	3.16	4.21	1.88 - 5.68	Acceptable	EPA 608	7/23/2013	-0.771	3.76	0.779	RPB
7245	gamma-Chlordane	µg/L	3.11	4.80	2.12 - 6.36	Acceptable	EPA 608	7/23/2013	-0.997	4.00	0.898	RPB
7355	4,4'-DDD	µg/L	4.02	5.59	2.63 - 7.81	Acceptable	EPA 608	7/23/2013	-1.0	5.05	1.03	RPB
7360	4,4'-DDE	µg/L	2.61	4.44	1.90 - 6.05	Acceptable	EPA 608	7/23/2013	-1.33	3.77	0.877	RPB
7365	4,4'-DDT	µg/L	2.78	4.08	1.62 - 5.93	Acceptable	EPA 608	7/23/2013	-1.07	3.62	0.789	RPB
7470	Dieldrin	µg/L	1.35	1.74	0.856 - 2.38	Acceptable	EPA 608	7/23/2013	-0.683	1.56	0.308	RPB
7540	Endrin	µg/L	2.91	4.80	2.10 - 6.86	Acceptable	EPA 608	7/23/2013	-1.83	4.58	0.914	RPB
7530	Endrin aldehyde	µg/L	5.62	6.63	2.44 - 9.92	Acceptable	EPA 608	7/23/2013	-0.223	5.89	1.22	RPB
7535	Endrin ketone	µg/L	8.80	11.0	5.90 - 14.5	Acceptable	EPA 608	7/23/2013	-0.649	10.1	1.97	RPB
7510	Endosulfan I	µg/L	< 1.40	< 1.40	0.00 - 1.40	Acceptable	EPA 608	7/23/2013				RPB
7515	Endosulfan II	µg/L	< 1.54	< 1.54	0.00 - 1.54	Acceptable	EPA 608	7/23/2013				RPB
7520	Endosulfan sulfate	µg/L	3.12	4.20	1.88 - 6.53	Acceptable	EPA 608	7/23/2013	-0.865	3.81	0.799	RPB
7685	Heptachlor	µg/L	2.64	4.60	1.62 - 6.26	Acceptable	EPA 608	7/23/2013	-1.3	3.77	0.868	RPB
7690	Heptachlor epoxide (beta)	µg/L	3.60	5.19	2.60 - 6.94	Acceptable	EPA 608	7/23/2013	-1.06	4.63	0.972	RPB
7810	Methoxychlor	µg/L	7.47	9.57	4.10 - 13.9	Acceptable	EPA 608	7/23/2013	-0.546	8.44	1.77	RPB



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





A Waters Company

WP-222 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID: PA00035
ERA Customer Number: M581801
Report Issued: 09/03/13
Study Dates: 07/15/13 - 08/29/13

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Chlordane (cat# 837)

7250	Chlordane, technical	µg/L	6.89	8.85	3.73 - 12.1	Acceptable	EPA 608	7/23/2013	-0.258	7.22	1.29	RPB
------	----------------------	------	------	------	-------------	------------	---------	-----------	--------	------	------	-----

WP Toxaphene (cat# 838)

8250	Toxaphene	µg/L	63.9	64.5	14.0 - 94.1	Acceptable	EPA 608	7/23/2013	0.301	60.4	11.5	RPB
------	-----------	------	------	------	-------------	------------	---------	-----------	-------	------	------	-----

WP Gasoline Range Organics (GRO) in Water (cat# 640)

9408	Gasoline Range Organics (GRO)	µg/L	1690	1580	550 - 2810	Acceptable	EPA 8260B 2 1996	8/21/2013	-0.388	1890	527	GXF
4375	Benzene in GRO	µg/L		16.9	7.88 - 27.6	Not Reported				16.3	1.67	
4765	Ethylbenzene in GRO	µg/L		50.7	31.3 - 69.8	Not Reported				56.9	5.28	
5140	Toluene in GRO	µg/L		147	82.1 - 192	Not Reported				135	7.94	
5260	Xylenes, total in GRO	µg/L		149	93.3 - 201	Not Reported				171	14.8	

WP Diesel Range Organics (DRO) in Water (cat# 641)

9369	Diesel Range Organics (DRO)	µg/L	3307	3900	993 - 4890	Acceptable	EPA 8015C 2000	8/8/2013	0.577	2870	753	TWH
------	-----------------------------	------	------	------	------------	------------	----------------	----------	-------	------	-----	-----

WP Total Petroleum Hydrocarbons (TPH) in Water (cat# 642)

1935	TPH (Gravimetric)	mg/L	57.0	87.5	40.9 - 126	Acceptable	EPA 1664A SGT 1999	8/7/2013	-1.53	73.0	10.5	WXC
1935	TPH (IR)	mg/L		108	51.0 - 156	Not Reported				113	18.8	



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

Page 26 of 26





A Waters Company

Karen E. O'Brien
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999

091713K



Final Report

QuiK™ Response Proficiency Testing

September 21, 2013

Karen E. O'Brien
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999

Fax: (610) 374-7234

Enclosed is your final report for ERA's QuiK™Response program. Your final report includes an evaluation of all results submitted by your laboratory to ERA. None of the assigned value(s) or acceptance limits were available to your laboratory at or before the time of reporting.

Please note the following changes to our final reports:

- At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than "0." In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.
- Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a supplemental (QuiK™Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting the quality of your routine data.

The data contained herein are confidential and intended for your use only.

If you are using this report for DMR-QA 33 Corrective Action, please note the following: permittees must submit a copy of this report to your DMRQA Coordinator, along with your corrective action documentation by October 7, 2013. Contract Laboratories should send a copy of this report to your permittees upon receipt.

Thank you for your participation in ERA's QuiK™Response program. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,



Kristina Sanchez
Quality Officer

cc: Project File Number 091713K



Final Report Results For Laboratory

M J Reider Associates



2009 TNI Evaluation Report

Project Number: 091713K

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Inorganic Results





A Waters Company

091713K 2009 TNI Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:

PA00035
M581801

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
<i>WP Oil & Grease Concentrate (cat# 4122) Study Dates: 09/17/13 - 09/21/13</i>												
1860	n-Hexane Extractable Material(O&G)(Grav)	mg/L	93.1	119	85.8 - 137	Acceptable	EPA 1664A 1999	9/21/2013	-2.61	107	5.41	WXC



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 3 of 3

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com





Final Report Results For Laboratory

M J Reider Associates





2003 NELAC Evaluation Report

Project Number: 091713K

ERA Customer Number: M581801

Laboratory Name: M J Reider Associates

Inorganic Results





A Waters Company

091713K 2003 NELAC Evaluation Final Complete Report

Karen E. O'Brien
QA/QA Officer
M J Reider Associates
107 Angelica St
Reading, PA 19611-1999
(610) 374-5129

EPA ID:
ERA Customer Number:

PA00035
M581801

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
--------------------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------	---------------	---------	------------	--------------------------	--------------

WP Oil & Grease Concentrate (cat# 4122) Study Dates: 09/17/13 - 09/21/13

1860	n-Hexane Extractable Material(O&G)(Grav)	mg/L	93.1	119	85.8 - 137	Acceptable	EPA 1664A 1999	9/21/2013	-2.61	107	5.41	WXC
------	--	------	------	-----	------------	------------	----------------	-----------	-------	-----	------	-----



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

Page 3 of 3

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

